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ABSTRACT

The lessons developed in this guide were designed for pregnant teenagers and teenage parents enrolled in the Wisconsin School-Age Parent (SAPAR) Program. The lessons can also be adapted for use in non-SAPAR courses such as family and consumer education, health, and language arts. The guide has eight chapters: Introduction (a preliminary lesson reviewing elementary concepts in nutrition and two survey sheets, "My Nutrition Interests" and a "Starter Survey," for the teacher to evaluate which of the 18 lessons would be most appropriate to teach in a particular class); Nutrients; Specific Wellness Issues; Making Smart Consumer Choices; Postpartum Nutrition in Teenage Pregnancy; Basic Food Groups: Nutrition for all Teenagers; Resources; and Appendixes. Lessons 1-13 (in Chapters 2-5) present diverse nutritional topics for pregnant teenagers, including prenatal and postnatal issues for mother and infant. Lessons 14-18 discuss nutrition for all teenagers. Activities supplement each lesson; the resource chapter includes a broad range of publications, films, and filmstrips. The three appendixes contain a food composition table, a fast food composition table, and answers to the introductory surveys and the puzzles included in the body of the document. (LL)

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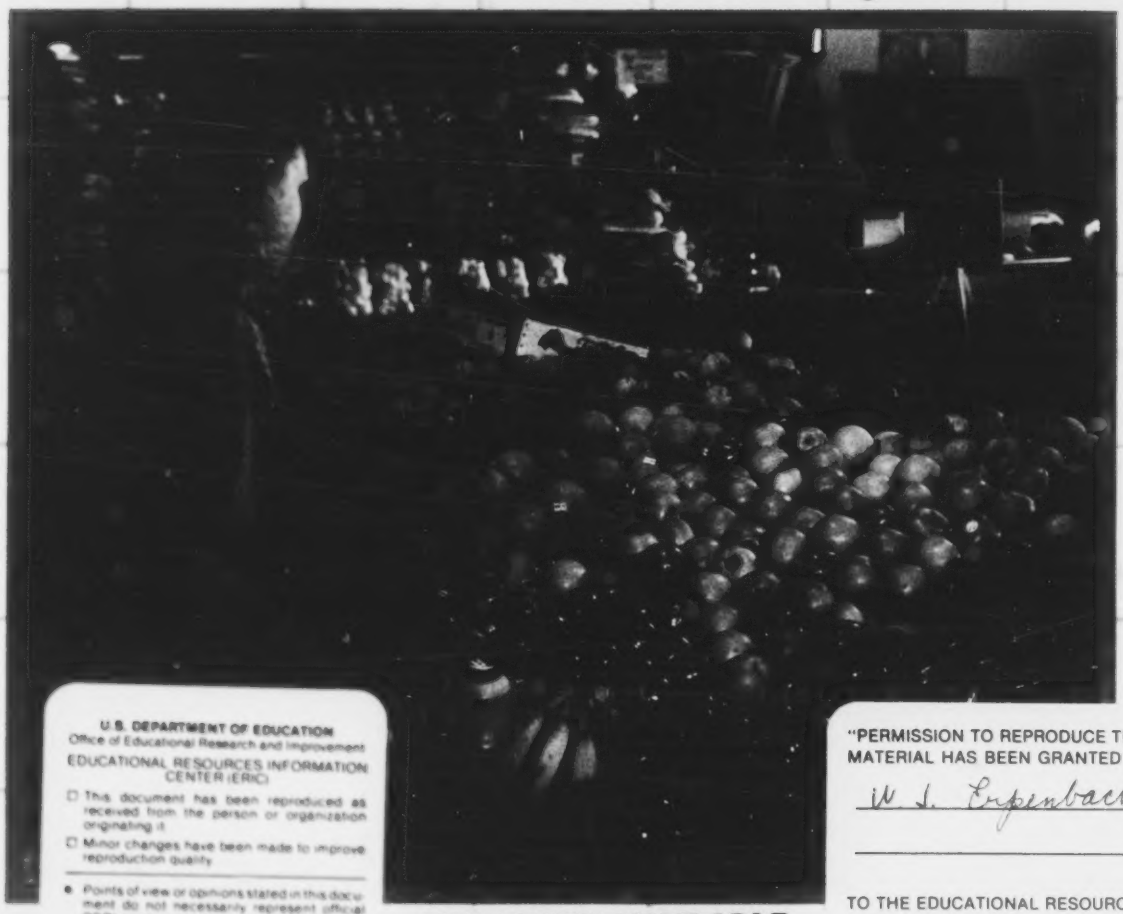

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Herbert J. Grover, State Superintendent

Classroom Activities in Nutrition in Teenage Pregnancy

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Foreword

Special challenges confront two generations of America's children: those born today to teenage parents and the teenage parents who bear them. As we plan the future legacy of these two generations, we want to see them inherit whatever they need to achieve a good education, solid and meaningful employment, and their own special dreams. Good health is an important part of this legacy, and we can help bequeath it by teaching the principles of proper nutrition in the childbearing year and thereafter.

This publication, *Classroom Activities in Nutrition in Teenage Pregnancy*, offers teachers of school-age parents a wealth of information, resources, and ideas whose effects can be far reaching in support of these two generations.

Teenagers have special nutritional needs that pregnancy intensifies. Proper nutrition is especially crucial for teens, and it forms an important part of their pre- and postnatal care. Sound nutritional practices can help teenage mothers return to a good state of postpartum health with minimal interruptions to their education, well-being, and self esteem.

Teenage mothers who can make sound nutritional decisions are more likely to bear babies of adequate birth weight. Low birth weight greatly endangers infants' survival in the first year of life and their health thereafter. This publication stresses the importance of gaining sufficient weight during pregnancy in addition to other positive actions, such as substituting more nutritious foods for less nutritious ones and using good nutrition to bolster wellness during pregnancy.

For pregnant teenagers, lessons in good nutrition can help keep them from losing momentum in life due to poor postpartum health. For their infants, it means starting life on a sound and strong footing, their first step toward an abundant and fulfilling adult life. Thus the positive impact of these lessons can last a lifetime for both generations of Wisconsin's children.

Herbert J. Grover
State Superintendent

Preface

The lessons in this publication were developed for pregnant teenagers and teenage parents enrolled in Wisconsin's School-Age Parent (SAPAR) Programs. Each district is free to develop its SAPAR program within general state guidelines according to local needs. Thus the programs are as diverse as the communities they serve. Curriculum and access to resources varies widely from district to district, as does the emphasis each program places on nutrition.

Yet nutrition is increasingly becoming recognized as one of the most crucial determinants of pre- and postnatal health for pregnant teenagers and their infants. These activities provide a flexible yet comprehensive set of lessons on the topic of nutrition in teenage pregnancy for the SAPAR teacher and for anyone involved in teaching pregnant teenagers or teenage parents. The lessons' step-by-step format can make lesson and unit planning much more efficient. The variety of activities within each lesson permits flexibility in terms of each class's needs and interests and the time and facilities available to the teacher. The lessons were revised for this edition to reflect increasing concern that this information be accessible to students from multicultural backgrounds and with diverse levels of reading competency.

Dian Gans developed the lessons under the supervision of Dr. S. Jane Voichick at the University of Wisconsin-Madison. Two members of the U.W.-Madison Nutritional Sciences Department and six nutrition educational consultants from different areas of Wisconsin reviewed the lessons. The lessons and activities were revised for this publication by Barbara A. Hetzel, DPI Nutrition Education Training Program (NET) coordinator.

Acknowledgments

The revision of this publication could not have been completed without the assistance of several key individuals. Sincere thanks to Carolyn Tomski, research assistant and graduate student in nutritional sciences, University of Wisconsin-Madison, for sharing her focus group research findings on effective audiovisual and print materials for pregnant teenage audiences. Appreciation is also owed to Gerri Jackson of the Dane County Expanded Food and Nutrition Education Program for reviewing the materials on culturally diverse food items and recipes included herein. Thanks also to Amy Arnold for acting as the model for the cover photo, and to the The Magic Mill, Madison, which served as the location.

Many colleagues at the Department of Public Instruction contributed energy and attention to producing this edition. Thanks to Raejean Kanter and Carol Philipps for technical assistance; Margaret Dwyer and Lisa Brockmeier, proofreaders; Debra Anklam and Sandra House, word processing operators; Neldine Nichols, photographer; and Victoria Rettenmund, graphic artist. This project would not have succeeded without the dedication and skill of our editor, Michele Gale-Sinex.

Introductory Materials

Overview of the Guide
Lesson Format and Suggestions for Use
Preliminary Lesson and Surveys

Overview of the Guide

Nutrition increasingly is becoming recognized as a crucial part of prenatal and postnatal care. All teenagers have special nutritional requirements that enable them to grow to a strong and healthy adulthood. Pregnant teenagers' nutritional needs are intensified by pregnancy, including increased requirements of calcium, protein, and certain vitamins and minerals.

Teachers in Wisconsin's School-Age Parent (SAPAR) Programs can contribute to the health of teenage mothers and their infants by teaching lessons on nutrition. However, not all districts currently integrate nutrition into their SAPAR curriculum. The lessons in this publication were designed to be used easily by SAPAR instructors with diverse access to facilities, time, and levels of familiarity with nutrition science. Furthermore, the lessons can be used in non-SAPAR courses such as family and consumer education, health, and language arts.

The activities that supplement each lesson can be used in a variety of ways: as take-home assignments, as small group research projects, as solo presentations in class, and so forth. The activities encourage student participation, exploration, and cooperation and were prepared to meet diverse learning styles, student abilities, and time constraints.

Recommended Dietary Allowances

The Recommended Dietary Allowances (RDAs) presented in these lessons were released by the National Research Council in 1989. However, experts in the area of adolescent nutrition express concern that RDAs may underestimate the nutritional needs of pregnant adolescents under 15 years of age or within two years of postmenarche. Another area of concern is the pregnant teenager's need for increased calcium both during the term of the pregnancy and afterwards, until age 24. A final area of concern is the developing infant's calcium needs. Although the RDAs presented herein reflect the best knowledge available as of this printing, instructors should be alert for updates and modifications of recommended values.

Organization of the Lessons

Classroom Activities in Nutrition in Teenage Pregnancy is organized to permit SAPAR or other interested instructors easy access to the information in these lessons.

The preliminary lesson and surveys offer the instructor the opportunity to gauge which of the 18 lessons would be most appropriate to teach in a particular class. The preliminary lesson includes a review of elementary concepts in nutrition. The "My Nutrition Interests" sheet evaluates students' interest in the different lessons' topics. The "Starter Survey" is a pretest that will help the instructor diagnose which lessons will best serve the needs of a particular group of students.

Lessons 1 through 13 cover diverse nutrition in teenage pregnancy topics, including prenatal and postnatal issues for mother and infant.

Lessons 14 to 18 discuss nutrition for all teenagers and teach information organized around the "Five Food Groups." Students will have had ample opportunity by junior high or high school to learn about the concept of food groups but may need to be reminded of the nutritional content of each group. However, research has shown that students in their

teens do not attend well to information they consider "old" or that they learned in grade school. Therefore, these lessons do not use the Five Food Groups terminology.

The resources section includes a broad range of publications, films, filmstrips, and other support materials for the SAPAR or other instructors interested in nutrition in teenage pregnancy.

Appendixes include two food composition tables and a teacher's answer key to the Starter Survey and the puzzles. Appendix A is a scaled-down food composition table designed to be used by teenagers of diverse cultural backgrounds. Appendix B offers nutritional content of selected fast foods to help students make good nutritional decisions when eating on the run.

Lesson Format and Suggestions for Use

The lessons have been designed as self-contained units; the teacher may refer to other lessons for related information or may choose to use only one of the lessons. In general, the lessons can be used in any order, but the instructor should refer to the section headings for a sense of how the lessons are clustered in this publication.

Each lesson includes these features:

Focus. This presents a short statement of the material covered by the lesson.

Objectives. The objectives summarize precisely which skills or content the lesson is designed to impart.

Teacher's Notes. For the instructor's convenience, each lesson includes an abstract of important background information. These notes can be scanned quickly for an introduction to each lesson's content.

Information Sheet and Worksheet. This portion summarizes the material and activities included in the two handouts for each lesson.

Recipes. Most lessons include recipes that offer students the chance to prepare and/or sample dishes that contain important nutrients.

References. These resources offer sources for succinct, authoritative information if the instructor needs further background on each lesson's topic.

Suggested Activities. Most of the activities can be adapted to individual, small group, or class use. Many lessons include food preparation activities.

Instructors will note that the lessons do not include review questions, assessment materials, or time allotments for each activity. This publication was prepared with the assumption that individual teachers are the best judges of how to evaluate students and allot class time. Furthermore, the activities vary in terms of the resources required to complete them and their level of difficulty. Thus, this publication aims to be as flexible as possible for teachers and students in a broad range of classroom situations.

Activities can be modified in any way and adapted to individual classroom, student, or group needs or interests. Lessons can be most effective when they involve students in the planning and executing of their learning. The preliminary lesson suggests a beginning-of-the-term activity that involves students in the creation of a journal or notebook reserved for issues related to their birthing year. Other activities permit students to create mini-books, pamphlets, displays, and recipe collections. Teachers should encourage students to seek help from family or living group members for assignments that have a take-home component.

This guide was designed to be used in parts or as a whole. For this reason, instructions for each lesson may include information that appears redundant to the teacher who reads more than one lesson. One idea that appears in each lesson is that of encouraging students to seek help from those at home. Forging such links between the classroom and the living group cannot be stressed too strongly.

Preliminary Lesson and Surveys

Focus

Foods can be grouped into categories according to the nutrients they contain. The energy values of all foods can be measured in calories (kilocalories). However, since no single food is a perfect food (no one food can sustain life by itself), we must eat a variety of foods to obtain a balanced diet.

Objectives

The student will be able to

1. identify particular concepts (nutrient, calorie, food group, etc.) when given a list of definitions.
2. recognize that nutrient requirements are not the same for nonpregnant and pregnant teenagers.
3. explain why pre-pregnancy nutrition is important for the protection of both mother and baby during pregnancy.

Teacher's Notes

The "My Nutrition Interests" survey helps students express which nutrition in teenage pregnancy topics would be most interesting or useful to them. The survey covers concepts and issues that appear in lessons 1-13, which discuss nutrition for pregnant teens, as well as in lessons 14-18, which discuss nutrition for all teenagers and the five food groups.

The "Starter Survey" is designed to help diagnose which lessons in this guide will best meet students' needs. The pretest contains questions about topics addressed in this guide. Administer it in whole or in part, in written or oral form, or revise the form of the questions. Questions correspond to particular lessons; an answer key appears in Appendix C for your reference.

The Nutrition Journal/Notebook

This guide contains many activities that require students to record information, observations, or impressions in a notebook reserved for these topics. Encourage students to create a special journal for this purpose, decorating its cover or otherwise marking it as a distinctive record of what they have learned about nutrition in teenage pregnancy. Creating journals as a class project can make an excellent activity for the second day of class.

Information Sheet and Worksheet

Information sheets entitled "B-right Ideas" appear in each lesson and provide necessary background material for students. Worksheets, called "The Puzzle Page," are designed for in-class or take-home use. Duplicate and distribute these before each lesson. Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any handouts they complete as take-home assignments.

Mini Food Composition Table and Fast Food Composition Table

The tables appear in Appendixes A and B. Duplicate enough copies for all students and distribute them early in the term. Students can store their copies in their nutrition journals for easy reference. Or keep them available for reference in the classroom.

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Brody, Jane. *Jane Brody's Nutrition Book*. New York: W. W. Norton and Company, 1982.

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Worthington-Roberts, Bonnie S., and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation*. 4th ed. St. Louis, MO: Times, Mirror/ Mosby College Publishing, 1989.

My Nutrition Interests

Which topics would you most like to learn about in your school-aged parent class?

1. Read the descriptions below of various topics about nutrition that could be covered in class.
2. Choose FIVE that you feel are the most important to cover.
3. Rate them from 1 to 5, with 1 as your first, most important, choice and 5 as your least important choice.

_____ A review of the five food groups, discussing nutrient sources, serving sizes, and my needs while pregnant. (*Lessons 14-18*)

_____ What is considered a healthy weight gain and why? How many calories should I eat during pregnancy? (*Lesson 1*)

_____ Why is protein important during pregnancy? Which foods are protein-rich? What are complementary proteins and how can I use them? (*Lesson 2*)

_____ Why is calcium important during pregnancy? Which foods are calcium-rich? How can I get enough calcium if I can't or don't drink milk? (*Lesson 3*)

_____ Which minerals are especially important during pregnancy and why? Which foods are good sources of each mineral? (*Lesson 4*)

_____ Which vitamins are especially important during pregnancy and why? Which foods are good sources of each vitamin? (*Lesson 5*)

_____ What substances are considered drugs? What are the dangers of using drugs during pregnancy? (*Lesson 6*)

_____ How can I deal with common problems of pregnancy: constipation, nausea, and heartburn? What is pica and why it is dangerous to my baby? (*Lesson 7*)

_____ How can I improve my nutrition during pregnancy when eating away from home: fast foods, bag lunches, school food services. (*Lesson 8*)

_____ How can I shop for economy and nutrition? How can I get help with menu planning and food buying? (*Lesson 9*)

_____ Which community and governmental agencies can offer me nutrition services and information during and after pregnancy? (*Lesson 10*)

_____ Which is best: breast- or bottle-feeding? Why? (*Lesson 11*)

_____ What changes should I make in my diet if I am nursing? (*Lesson 12*)

_____ When can my baby begin on solid foods? Which foods are best to begin with and in what order? (*Lesson 13*)

Starter Survey

These questions will help your teacher know which topics to include in your school-aged parent nutrition class. Below are statements about food and nutrition during pregnancy. In each statement, circle the answer in parentheses you think is the best one.

1. Each day, the pregnant teenager needs about (300, 500, 1000) calories more each day for her own growth and for the development of her baby.

2. During an uncomplicated pregnancy, a good, normal weight gain is about (10-15, 25-35, 40-45) pounds.

3. The extra food needed during pregnancy maintains the health of (the mother only, the baby only, both the mother and the baby).

4. Excess dietary protein (can, cannot) be stored in the body and should be eaten every day.

5. An example of combining vegetable proteins wisely is (rice and beans, lettuce and tomatoes, ketchup and french fries).

6. The pregnant teenager needs at least (4, 6, 8) servings of calcium-rich foods each day.

7. Nonmilk sources of calcium include (collards and fish with edible bones, chocolate and peanuts, kidney and lima beans).

8. Table salt (should, should not) generally be restricted during pregnancy.

9. (Calcium, Iron, Sodium) is a mineral needed during pregnancy to help produce blood for both baby and mother.

10. For proper growth of the baby's nerves and skeleton, the mother should have an adequate amount of the mineral (iron, sodium, zinc) in her diet.

11. (Seafoods, fruits, vegetables) are a good food source of iodine.

12. Vitamin D and (vitamin A, niacin, riboflavin) help maintain the health of the pregnant teenager and are especially important for her baby's developing body cells.

13. (Carrots and dark yellow squash, Celery and cucumbers, Eggplant and tomatoes) are very rich in vitamin A.

14. (Broccoli and leafy green vegetables, milk and cheese, nuts and raisins) supply folacin, a B-vitamin.

15. If the pregnant teenager needs to increase her intake of vitamin C, she should eat more (green peppers and oranges, whole grains, carrots and liver).

16. A good food source of vitamin D is (green and yellow vegetables, fortified milk, red meats).

17. Alcohol, caffeine, and nicotine (are not, are) dangerous substances to use during pregnancy.

18. A baby with Fetal Alcohol Syndrome may be (mentally retarded, tall for its age, very strong) and have unusual facial features.

19. Vitamin and mineral supplements are (always necessary, sometimes useful, never needed) during pregnancy.

20. Smoking (is dangerous, is not dangerous) for the developing baby.

21. Morning sickness during early pregnancy may be helped by eating a number of smaller meals and by (eating more spicy foods, drinking fluids with meals, avoiding greasy or fried foods).

22. Constipation may be relieved by including more fiber in the diet, by exercising regularly, and by (drinking more water, eating enriched breads, peeling fruits and vegetables).

23. Eating nonfood items such as ashes, laundry starch, or clay during pregnancy (is not dangerous, is rarely dangerous, is dangerous) to the developing baby.

24. Fast foods (are dangerous, can be eaten occasionally, are fine for a steady diet) during pregnancy.

25. Select the beverage that gives this menu a food item from each of the five food groups: ham salad sandwich on whole wheat bread, carrot and celery sticks, a banana, and (tomato juice, low-fat milk, soft drink).

26. To help keep your grocery bill low, you should (shop while hungry, buy only specials, make and use a grocery list).

27. Nutrition labels on food (are required on all foods, help in choosing the most nutritious foods for your money, contain the manufacturer's name and address).

28. By adding about three cups of (fruit juice, milk, water) to your diet each day while nursing, your increased nutritional needs could be met.

29. Drugs taken by the mother while nursing (can, cannot) enter her milk.

30. For the teenaged mother, the choice of bottle- or breastfeeding depends upon (only the mother's feelings, only the infant's needs, both mother's feelings and infant's needs).

31. Vitamin and mineral supplements are (always necessary, sometimes necessary, never necessary) for both bottle-fed and breast-fed babies.

32. Solid foods should be introduced into your infant's diet no earlier than (2-3, 4-5, 8-9) months of age.

33. Sugar and (water, salt, flour) are unnecessary additives to any baby food.

B-right Ideas: General Nutrition Concepts

No single food is a perfect food. That is, no single food contains all the nutrients your body needs. This is why you must eat different foods. Each food contributes certain nutrients. The best diet contains a balance of nutrients from a variety of wholesome foods.

Carbohydrates. These are the starches and sugars. They provide your body's main source of energy.

Proteins. Your body uses protein mainly for growth and repair. Red meats, poultry, and fish are high protein foods, but careful combinations of plant proteins can approach the quality of protein found in meats.

Fats. This category includes animal fats such as meat fat and butter and also vegetable oils.

Vitamins. Your body needs these compounds in small quantities. Examples include vitamins A and C and the B-vitamins.

Minerals. Your body also needs small quantities of these. Examples are iron and calcium.

Water. Water is the most essential nutrient for your body. You could survive up to two months without food, but you would only survive a few days without water.

Food provides energy for your body. This energy is measured in a unit called a calorie.

- **Carbohydrates and proteins produce about the same amount of energy per ounce.**
- **Fats produce about twice as much energy per ounce as carbohydrates and proteins do.**
- **Vitamins, minerals, and water don't supply energy and contain no calories.**

Nutrients are substances the body uses to grow or to repair and maintain itself. There are six major categories of nutrients:

- **Carbohydrates**
- **Proteins**
- **Fats**
- **Vitamins**
- **Minerals**
- **Water**

Another Way to Plan Nutrition

There's another way you can think about the food you eat and drink. You don't usually think of eating nutrients. But you do think about types of foods. Nutritionists have developed the five food groups to help you plan your nutrition.

The first four food groups provide essential nutrients. The fifth group includes foods that provide mainly calories, but few nutrients.

- fruits and vegetables
- grain foods
- dairy foods
- protein foods
- fats, sweets, and alcohols

These groups make it simpler to plan meals and balance your diet. You will learn easy rules to help you remember how much of one particular type of food you should eat each day to get the nutrients you and your developing baby need for good health.

Energy

Food provides energy for the things your body does. This energy is measured in a unit of heat called the calorie (kilocalorie).

Carbohydrates and proteins produce the same amount of heat per ounce. But fat produces more than twice the amount as either carbohydrates or protein per ounce. Minerals, vitamins, and water contain no energy, so provide no calories.

The Puzzle Page

Directions: Find a word in the list below that best fits each definition, and write it in the blank beside the definition. The answers are below. Use each word only once.

calorie	fat	nutrients
energy	carbohydrates	food group
vitamin	protein	
mineral	water	

1. _____ A general name for substances in food which are used by your body to grow, repair itself, or maintain its tissues.

2. _____ A nutrient which contains no calories. It is a fluid we cannot live without for more than a few days.

3. _____ The class of nutrients that includes starches and sugars. It is your body's main fuel.

4. _____ Calories are the unit of measure for _____.

5. _____ The class of nutrients used by your body mainly for growth and repair. Meats, poultry, fish, and beans are rich in this type of nutrient.

6. _____ Two classes of nutrients that are needed in small quantities by your body.

_____

7. _____ A convenient method of grouping foods that are similar in the nutrients they contain.

8. _____ A class of nutrients that contains butter, salad oil, and lard.

9. _____ The unit used to measure the energy content of food.

Nutrients

Lesson 1: Calories and Energy—Gaining is a Real Plus!
Lesson 2: Proteins—The Foods with Grow Power
Lesson 3: Calcium Needs During Pregnancy
Lesson 4: Minerals—ZIIS for Zest and Zip
Lesson 5: Vitamins—ACDFolacin Foods

Lesson 1

Calories and Energy – Gaining is a Real Plus!

Focus

Pregnant teenagers must increase their energy intake to maintain their own growth and to birth a healthy baby. The current recommended weight gain is about 25-35 pounds during the entire pregnancy. Lower weight gains may harm the mother or the baby.

Objectives

The student will be able to:

1. recognize that pregnant teenagers should increase their average energy intake by at least 300 calories (kilocalories) per day throughout pregnancy.
2. identify 25-35 pounds as an optimum (i.e., not excessive) weight gain in a normal pregnancy.
3. explain that the extra intake of calories is necessary to maintain the health of the mother as well as to birth a healthy baby.
4. state three possible dangers associated with a too-low or less than optimum weight gain.

Teacher's Notes

Weight gain in pregnancy varies; teenage and first-time mothers tend to gain more than older women and those having other than their first child. The average weight gain is 27 pounds; 25-35 pounds is considered normal and healthy. About two to four pounds of this gain should accrue during the first three months. During the last six months, weight is gained at the rate of approximately three-fourths to one pound per week. If the pregnant woman "eats to appetite," the extra intake averages out to about 300 calories a day throughout pregnancy.

During the first trimester, the mother's uterus grows and her blood expands. During the second trimester, her tissues continue to grow and stores of maternal reserves are laid down. During the third trimester the fetus's growth is responsible for the greatest part of the weight gain. If the mother does not gain enough during pregnancy, she may place herself at increased risk of pregnancy complications such as toxemia, premature birth, prolonged labor, and anemia. Two direct results of improper weight gain are increased risk of death for the mother and the infant born underweight (less than 2,500 grams or five and one-half pounds). The low birth-weight baby has increased mortality risks and increased incidence of abnormalities such as cerebral palsy, epilepsy, and mental retardation.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any handouts they complete as take- home assignments.

"The Puzzle Page" helps students keep a record of their weight gain during pregnancy. Have them keep the sheet in their notebooks or journals and periodically enter their weights (such as after each physical exam). With each entry, have them compare their gain with the average (represented by the thick line), assuming that their infants will weigh seven and one-half pounds at birth. If necessary, make a transparency of the worksheet to demonstrate to the class how to track their weight gains.

References

Elswick, Linda L. *Teenage Pregnancy and Nutrition: A Review.* Albany, New York: The University of the State of New York, 1980.

Luke, Barbara. *Maternal Nutrition.* Boston: Little, Brown and Company, 1985.

Worthington-Roberts, Bonnie S., and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation.* 4th ed. St. Louis, MO: Times, Mirror/ Mosby College Publishing, 1989.

Suggested Activities

1. Eating to Gain

PREPARATION and ACTIVITY. Ask students to pretend that their friend Katy is pregnant and finds that she is not gaining weight at a satisfactory rate. Using the information sheets from lessons 14 through 18 as references, have the students suggest changes in Katy's diet that might improve her weight gain.

Students could generate suggestions such as these:

- Eat smaller meals, but more meals throughout the day.
- Instead of water, coffee, tea, and diet drinks (all low calorie), drink whole milk, milkshakes, fruit juices, eggnog.
- Spread bread or crackers thickly with foods like peanut butter, cheese spreads, and meat spreads.
- Eat puddings, custards, and ice cream for desserts.
- Add more butter, margarine, mayonnaise to foods.
- Increase consumption of breads, rolls, potatoes, rice, pasta, corn, etc.
- Use cream or half-and-half in creamed foods, soups, gravies, and sauces.
- Eat when relaxed to avoid binge eating.
- Drink liquids after the meal instead of with the meal.

2. Slowing Down Weight Gain

PREPARATION and ACTIVITY. Ask students to pretend that their friend Barb is pregnant and finds she is gaining too fast. Her last checkup showed that nothing was physically wrong, but the doctor suggested she change her diet to slow down the weight gain. Using the information sheets from lessons 14 through 18 as references, have students suggest changes in Barb's diet that might help her gain at a better rate.

Students could generate suggestions such as these:

- Substitute skim or low-fat milk for whole milk.
- Eat fresh or raw fruits and vegetables in place of those prepared with sauces, butter, or sugar.
- Increase the use of high fiber, low calorie foods (such as carrots, celery, dill pickles, etc.).
- Switch from presweetened to nonsweetened breakfast cereals.
- Avoid fried foods.
- Prepare meats by baking, broiling, or boiling, without added fat, gravies, sauces.
- Decrease amount of butter on bread and sugar on cereals.
- Cut down on intake of high calorie/low nutrient density foods, such as donuts, sweet rolls, chips.

3. Balancing Weight Gain

Combine activities 1 and 2. Ask students to prepare lists of both sets of suggestions to keep in their notebooks for further reference. As their pregnancies progress and particular problems arise, they can refer to the sheet to refresh their memories.

4. Simple Additions

PREPARATION. Duplicate several copies of the "Mini Food Composition Table" in Appendix A so that several students may share a copy if they don't already have one.

ACTIVITY. Using the table, students should devise different nutritious ways to include the extra 300 calories into their eating styles each day. Encourage a variety of responses, such as

- spreading out the calories over the day in snacks,
- adding the calories to existing meal times,
- adding the calories as drinks throughout the day, or
- preparing a bedtime snack.

Any such response is acceptable as long as the emphasis is on nutrition. Suggest that students prepare a copy of their ideas to include in their notebook or to keep in the classroom for later use in preparing snacks.

5. Snacking by the Hundreds

Prepare "Snack by the Hundreds" on page 19. Duplicate the recipe for students to include in their notebooks or to share with those at home.

B-right Ideas: Gaining is a Real Plus!

A weight gain of 25 to 35 pounds sounds like a lot when a healthy baby weighs only seven or eight pounds. But, remember—parts of your body must grow to help a healthy baby develop.

You gain weight in different ways. Look at the chart on the right

If you add these up and then add the baby's weight, 25 to 35 pounds makes sense for a healthy baby, doesn't it?

Where You Gain	How Much You Gain
Your breasts and uterus	2-6
The placenta, or afterbirth, and its fluids	4-6
Increases in your blood, body fluids, and body stores	12-15

When You Gain

You gain this weight at different times in preganancy.

During the first three months, the two to four pounds you gain comes from increases in your uterus and your blood supply to nourish the growing tissues.

During the second three months, your body lays in stores, including fat for nursing.

How to Gain

You need to gain 3/4 to one pound per week during the last six or seven months of your pregnancy. To gain that weight each week, you need to eat about 300 extra calories per day throughout pregnancy.

You can get the extra calories you need in many ways, with lots of different combinations of nutritious foods such as

- two extra glasses of whole milk, or
- cheese, fruit, and crackers, or
- orange juice and half of a waffle sandwich. (See the recipe on page 19.)

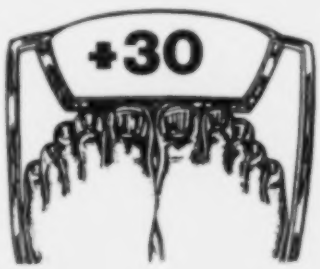
Not Gaining is Dangerous

While the baby is developing, your body continues to grow if you haven't reached your adult height and weight. If you have reached adult size, you must keep your body healthy. Either way, if you don't eat enough nutritious food during pregnancy, it can contribute to complications.

Low weight gain during pregnancy can be dangerous for both you and your baby. Doctors now say it is not safe to diet during pregnancy. Most of the extra weight will be lost by about three months postpartum (after the birth). Nursing is one way those extra stores laid in during pregnancy are used up.

Eat plenty of nutritious food throughout pregnancy so you have a healthy weight gain. If you don't, it can contribute to the following complications:

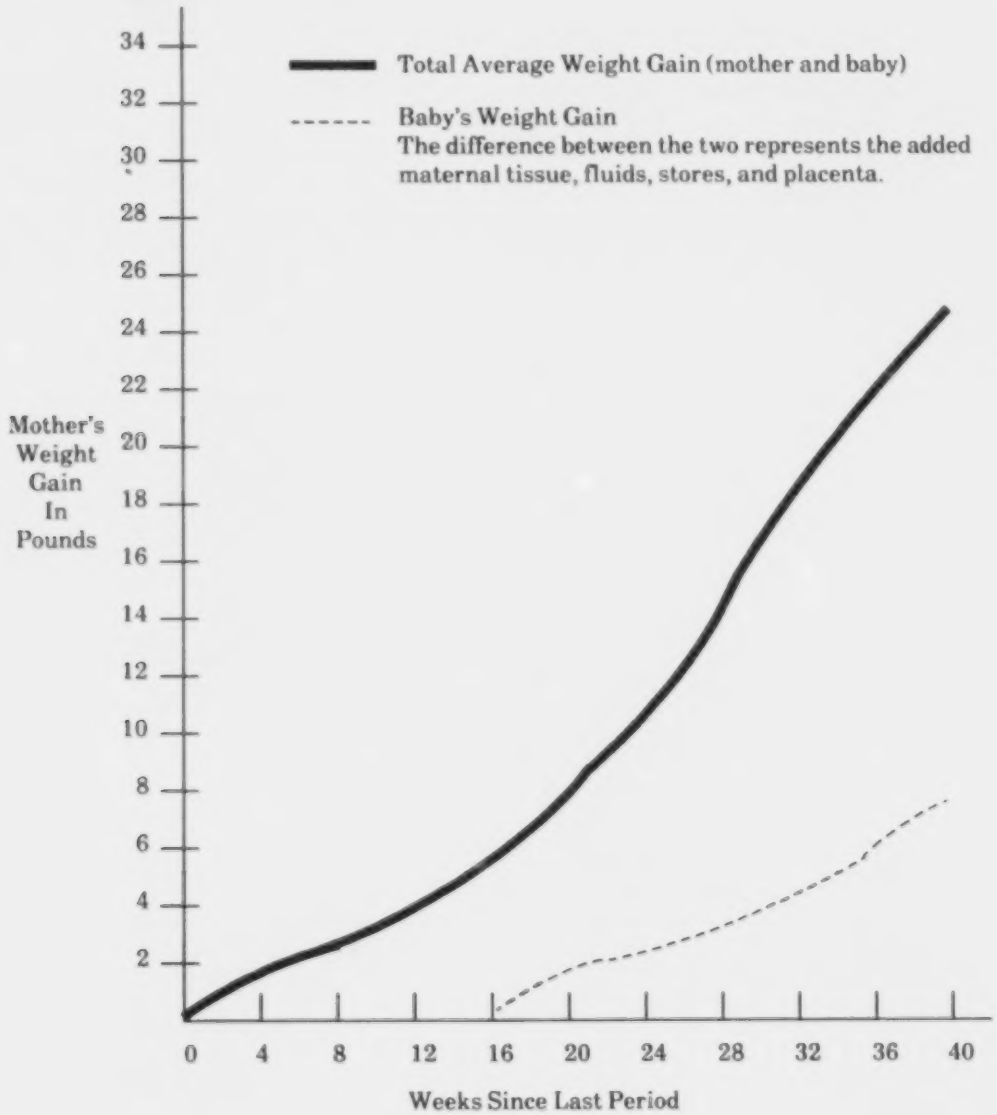
- toxemia, or "blood poisoning"
- premature birth
- prolonged and difficult labor
- anemia
- an underweight baby
- death of mother
- death of baby

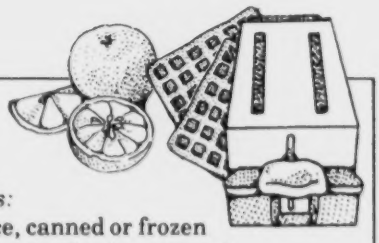


Worksheet

The Puzzle Page

This graph shows the amount of weight gain during an average pregnancy. Each time you are weighed, mark your current weight with respect to how far along your pregnancy is. Compare your gain with that of an average pregnancy that produces a seven and one-half pound baby.





Snack by the Hundreds

Equipment needed:
container to mix orange juice (if using frozen concentrate)
large spoon or whisk
toaster or toaster oven
table knives
large, sharp knife (optional)
cups or glasses
paper plates or napkins

Ingredients:
orange juice, canned or frozen concentrate (fresh-squeezed would be nice)
whole wheat or enriched toaster waffles
sliced cheese, several varieties, if desired

Instructions:
Mix up or squeeze orange juice. Pour each student a 6-ounce serving (3/4 cup). Toast waffles in a toaster. Place a slice of cheese between two waffles; cut sandwich in halves.

100 calorie snack = 6 ounces of orange juice
200 calorie snack = 1/2 of a waffle sandwich
300 calorie snack = 6 ounces of orange juice and 1/2 of a waffle sandwich

Lesson 2

Proteins–The Foods with Grow Power

Focus

Pregnant teenagers should increase their protein intake because protein is necessary for the growth of the baby. Extra protein is needed during nursing to produce milk and lactating tissues. Foods that supply protein come from both animal and plant sources. Two or more protein foods may be combined to contribute higher quality protein to the diet.

Objectives

The student will be able to

1. recognize that protein cannot be stored in the body and should be eaten every day.
2. identify four sources of animal protein and three sources of vegetable protein.
3. list three combinations of complementary vegetable or animal-vegetable protein foods.
4. explain that protein is needed in pregnancy for the growth of the baby's tissues and in nursing to produce milk.

Teacher's Notes

The pregnant teenager needs to increase her protein intake from about 45 grams per day to about 60 grams per day. The increased need is due to the rapid growth of the baby, the development of the placenta, enlargement of maternal tissue, increased maternal blood volume, formation of amniotic fluid, and storage of reserves in the maternal tissue. The protein requirement increases during the first six months of lactation to about 65 grams per day due to the production of milk and maintenance of milk-producing tissues. Since protein cannot be stored in the body, daily intake is a must; protein is best utilized if eaten throughout the day.

Protein is composed of amino acids, some of which the body needs but cannot produce. Those the body cannot produce are known as "essential" amino acids. These essential amino acids are found in higher proportion in animal products; lower quality protein, like that found in plant products, contains a smaller proportion of essential amino acids. Carefully balancing lower quality proteins by combining plant foods, it is possible to approach a higher quality protein. Likewise, the combination of animal proteins with plant proteins increases protein quality.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any handouts they complete as take-home assignments.

"The Puzzle Page" for this lesson asks students to suggest appropriate combinations of protein foods. Choose one or two simple ideas to try as an in-class preparation. Explore the possibility of having students invite someone from home to help prepare these recipes in class. Possible answers to the worksheet appear in Appendix C.

References

Ewald, Ellen Buchman. *Recipes for a Small Planet.* New York: Ballantine Books, 1973.

Lappé, Frances Moore. *Diet for a Small Planet.* Revised ed. New York: Ballantine Books, 1975.

Robertson, Laurel, Carol Flinders, and Brian Ruppenthal. *The New Laurel's Kitchen: A Handbook for Vegetarian Cookery and Nutrition.* Berkeley, CA: Ten Speed Press, 1986.

Worthington-Roberts, Bonnie S., and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation.* 4th ed. St. Louis, MO: Times, Mirror/ Mosby College Publishing, 1989.

Suggested Activities

1. Taste-Testing Protein Sources

PREPARATION. Collect samples of several items in each category of legumes, seeds, and nuts. These food items may be unfamiliar to some of the students. Ethnic groceries or natural food stores usually have such foods in bulk and might be willing to donate samples. Have samples in forms that students can taste (kidney bean salad, roasted sunflower seeds, walnuts). Legumes is the name given to beans, peas, and similar plants that are excellent protein sources. Suggestions include the following:

Nuts	Seeds	Legumes	
cashews	pumpkin	black beans	black-eyed peas
walnuts	sunflower	garbanzo beans	Great Northern beans
pistachios	sesame	kidney beans	lima beans
Brazils	mustard	navy beans	pea beans
pine nuts	squash	pinto beans	red or pink beans
pecans	pine nuts	lentils	green or yellow peas
almonds		split peas	peanuts
filberts			

ACTIVITY. Suggest that students taste one product in each group. Have them make a list of the above foods, and ask each to return with one recipe using one food from each category. Emphasize that the recipe should be one they would eat and suggest that they search out recipes from friends or family. Have students assemble the recipes in a form that can be duplicated, shared by all, and placed in their notebooks.

2. Adding Protein

PREPARATION. Duplicate the MiniFood Composition Table in Appendix A so that several students may share a copy.

ACTIVITY. Using the foods in the table, ask students to suggest different ways they could add 15 grams of protein to a recommended daily intake of 45 grams when not pregnant. Suggest categories such as: dividing the extra intake between two snacks, adding it to a three-meal-a-day diet, dividing it between lunch and dinner, or adding it to a sack lunch and a late afternoon snack. If more complete food composition information is desired, refer to either of Catherine Adams' publications in the annotated bibliography.

3. Protein Log

PREPARATION and ACTIVITY. Have the students keep a log for several days of the protein foods they have consumed. With the help of the Mini Food Composition Table in Appendix A, a more extensive table, or a college nutrition text, have each student estimate her daily protein intake for this period. The recommended intake for a pregnant teenager is 60 grams a day; anything less may be a sign that the diet could be improved; anything more may mean that protein is being wasted as energy instead of for growth and maintenance.

4. Food Preparation

PREPARATION and ACTIVITY. Prepare either "Bagel Pizzas" (animal protein + grains) or "Appetizing Bean Dip" (animal protein + legumes). If the dip is served with tortilla chips, it represents a "three-way" complement (animal protein + legumes + grains). The recipes are on a separate page in this lesson so that they may be duplicated and included in the student's notebook.

Related Activities

Related activities appear elsewhere.

- Lesson 17, activities 1 (identifying animal or vegetable proteins); 2 (keeping a protein log); 3 (sampling seeds and nuts); and 4 (food preparation: "Stuffed Celery Logs I and II").

B-right Ideas: Proteins—The Foods with Grow Power

Protein foods have grow power. During pregnancy, you need extra protein foods for growth of new tissues for you and your baby. You also need extra protein for repair of your body cells. Later, if you nurse your baby, your body will make milk in part from the protein in the food you eat.

Some nutrients can be stored in the body. Protein cannot. You need to eat protein foods every day. Protein is similar to a necklace with beads. Each bead is a chemical called an amino acid. Some amino acids, or beads of protein, cannot be made in your body. These are called "essential amino acids." Essential amino acids have to be supplied to your body already formed.

Protein is like a bead necklace. Each "bead" of protein is called an amino acid. Amino acids come from animal foods and vegetable (plant) foods.

Animal Foods
- beef, pork, lamb, pork, poultry, veal
- seafoods, shellfish, fish
- organ meats (liver, kidneys, etc.)
- eggs and dairy products

Plant or Vegetable Foods
- beans
- nuts, nut butters
- seeds (sesame, sunflower, rye, wheat, corn, oat, etc.)

You need 60 grams of protein per day while pregnant.

Animal vs. Vegetable Protein

Both animal foods and plant foods contain protein. Animal protein has more essential amino acids than single vegetable proteins. Animal foods are considered higher quality protein than plant foods if eaten by themselves.

However, you can combine different incomplete or lower quality protein foods during the same day. Then the total protein you eat will approach the quality of complete proteins. Combinations and examples to remember appear below.

Combinations	Examples
Grains + Legumes*	wheat bread and baked beans corn tortillas and beans wheat/soy or corn/soy bread blackeyed peas and grits or corn bread
Legumes + Seeds	roasted soybean/sunflower seed snack peanut butter on sunflower seed bread
Animal Protein + Grains	beef taco (beef and corn) milk and breakfast cereal cheese and meat pizza cheese and macaroni casserole
Animal Protein + Legumes	chili beans with beef split pea or navy bean soup with ham

*Legumes are vegetables of the bean and pea family, like soybeans, split peas, lentils, and black beans.

Worksheet

The Puzzle Page

Different proteins complement each other. In combination, they produce a more nutritious food for your and your developing baby. Now it's your turn to think up some combinations.

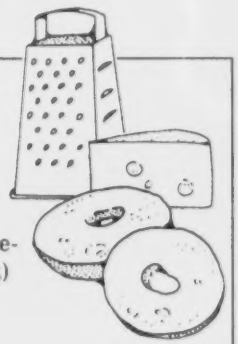
Below are four ways of combining protein foods. These combinations improve the usefulness of the foods: your body can use them better in combination.

Can you suggest a combination of foods for each of the meals listed? Refer to the handout, "Proteins: The Foods with Grow Power," for ideas. Try to use examples not listed there. Be creative! And remember to suggest combinations you would eat.

Grains + Legumes*	Breakfast _____
	Lunch _____
	Dinner _____
	Snack _____
Legumes* + Seeds	Breakfast _____
	Lunch _____
	Dinner _____
	Snack _____
Animal Protein + Grains	Breakfast _____
	Lunch _____
	Dinner _____
	Snack _____
Animal Protein + Legumes*	Breakfast _____
	Lunch _____
	Dinner _____
	Snack _____

*Legumes are foods like beans, peas, lentils, and peanuts.

Bagel Pizzas



Equipment needed:
knife
baking sheet
large spoons and spatula
grater for cheese
oven
paper plates for serving

Ingredients:
6 whole bagels, sliced (whole wheat *or* enriched)
1 jar (8-12 oz.) spaghetti sauce or home-made sauce (with or without meat)
1 lb. Mozzarella cheese

Instructions:
Shred the cheese. Place each bagel half, split-end up, on a large baking sheet. Cover each half with 1-2 Tbsp. of the sauce. Divide the shredded cheese evenly over the twelve halves.
Heat oven to 325°F. Bake the pizzas about 15 minutes, until the bagel is well-heated and the cheese is bubbly. Eat immediately or cool quickly for storage. Each bagel pizza is about 260 calories.

Suggestions: These reheat well and could be frozen before or after the initial heating.

Appetizing Bean Dip *

Equipment needed:
grater for cheese
sharp knife
stove
mixing spoon
measuring cup and spoons
sauce pan
candle warmer (optional)

Ingredients:
1 can (1 lb.) refried beans
1 cup shredded Cheddar cheese
1/2 cup chopped green onion, including tops
2-3 Tbsp. taco sauce (optional)

Instructions:
Shred the cheese and chop the green onions. Mix all ingredients in the sauce pan; warm over low heat, mixing well. Keep warm over very low heat on the stove or over a candle warmer.
Serve with "dippers": corn chips, tortilla chips, whole wheat bread cubes, or crisp vegetable slices.
This recipe makes about 3 cups of dip. Each 1/2 cup supplies about 185 Calories.

*revised from: *Sunset's Mexican Cook Book*, Lane Books, Menlo Park, CA.

Lesson 3

Calcium Needs During Pregnancy

Focus

Pregnant teenagers should be sure to consume adequate calcium throughout pregnancy to support the growth of bones and teeth in the developing baby and to maintain their own bodies' needs. Milk and milk products are excellent sources of calcium, as are certain nonmilk sources.

Objectives

The student will be able to

1. recognize that four to five servings of calcium-rich foods are recommended daily for the pregnant adolescent.
2. recognize two foods other than milk and milk products that are good sources of calcium.
3. recognize that calcium is important for the proper growth of bones and teeth in the developing baby and for the maintenance of healthy bones and teeth in the mother.

Teacher's Notes

Teenagers and pregnant women of all ages have the highest requirement for mineral calcium. The pregnant teenager needs calcium for proper bone growth or for maintenance, if she is no longer growing. The developing baby needs calcium for proper bone growth and tooth development. Calcium is also important in blood clotting and in maintaining healthy nerves and muscles.

The recommended intake for all pregnant women is 1,200 mg. per day. This need can be met by four to five servings from the milk and cheese food group (see Lesson 16). Other dairy and nondairy sources of calcium are also available for those whose preferences or needs limit or exclude dairy intake for cultural, individual, or other reasons (such as lactose intolerance). Activity 2 presents information on nondairy sources of calcium and on lactose intolerance.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any work they do as a take-home assignment.

References

Luke, Barbara. *Maternal Nutrition*. (See Chapter 6, "Lactose Intolerance during Pregnancy: Significance and Solutions.") Boston: Little, Brown and Company, 1985.

Stern, Judith S., and R. V. Denenberg. *How to Stay Slim and Healthy on the Fast Food Diet*. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1980.

Worthington-Roberts, Bonnie S., and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation*. 4th ed. St. Louis, MO: Times, Mirror/ Mosby College Publishing, 1989.

Suggested Activities

1. Milk Taste-Testing

PREPARATION. This activity requires refrigeration facilities or a large ice chest to ensure all milks are kept from spoilage and served well chilled. Bring to class several kinds of milk: whole, skim, reconstituted nonfat dry, reconstituted evaporated, or a mix of half whole and half nonfat. Provide small (three ounce) paper cups for each student to sample each milk. Students who have been demonstrated to have lactose intolerance should not participate in this activity.

ACTIVITY. Inform the students that they will form a taste panel. Each student should sample the milks in random order without knowing which is which. Code the milks with numbers or letters to keep track of the varieties. Ask students to record the code for each milk, to rate them on a scale from one to three, and to try to guess the type of each milk.

After all students have tasted and rated the samples, present the correct answers. Explore with students which milk(s) they prefer and why. From the prices of each milk, calculate with the students which is the least expensive per eight ounce serving, and discuss what impact this might have on their food budgets.

2. Calcium Alternatives to Milk

PREPARATION. Prepare a short summary on the issue of lactose intolerance. See Luke, *Maternal Nutrition*, in the above references, or an introductory nutrition textbook. These facts may help:

- Lactose intolerance is genetic in nature. It is **not** an allergic reaction.
- It affects about 80 percent of the world's population.
- It often affects individuals of African, Eastern Mediterranean, Asian, and Ashkenazic Jewish ancestry, cultures that don't rely on milk as a food after infancy.
- It appears around four years of age, causing nausea, diarrhea, and discomfort when milk is drunk in various amounts.
- Affected individuals cannot digest lactose, the sugar in milk, because the enzyme lactase, which breaks it down, is not present in their bodies.

ACTIVITY. Present students with the summary in written, oral, or poster or blackboard form. Discuss the syndrome, emphasizing that, while milk is an excellent source of calcium, it cannot be consumed by all people, and other sources of calcium are available.

Sometimes the syndrome is not severe for all types of dairy products. For instance, cheeses and yogurt may be tolerated by some people who cannot drink milk because the lactose is predigested by bacteria used in the processing of yogurt and cheese.

Selected nonmilk products contain calcium. Certain dark greens such as kale, collards, mustard greens, dandelion greens, broccoli, and turnip greens are very high in calcium. For instance, three ounces of sardines (eaten with the bones) or ten ounces of frozen leaf spinach contains as much calcium as an eight-ounce cup of skim milk.

In addition, special products such as lactose enzyme powders, tablets, or capsules are available which can be added to food. These predigest the lactose. Other products can act as substitutes for milk products, such as soybean milk or frozen tofu (an ice cream substitute), which contain little or no lactose but are good calcuim sources.

For this activity, ask each student to prepare a menu which contains one nonmilk source of calcium. Encourage them to explore a range of nonmilk calcium sources and to evaluate meals in their home or living group for these foods.

If some of the students are lactose intolerant, invite them to share their feelings with the class, if they wish.

3. Let's Amend the Menu

PREPARATION. Obtain a weekly menu for the school breakfast or lunch program for the junior and/or senior high schools. Duplicate and distribute it.

ACTIVITY. Examine the menu as a class, and ask students to discuss suggestions for additions to or substitutions in each meal that would increase the calcium content. Students can refer to their copies of the Mini Food Composition Table from Appendix A. Encourage answers other than "drink more milk" or "eat more cheese."

4. Calcium Away from Home

PREPARATION. Obtain copies of fast-food or regular restaurant menus. Students could copy the fast-food menus; restaurant owners or managers might give you outdated menus for free.

ACTIVITY. Distribute the menus or copies. Ask students to identify all the foods which contain calcium. Using the same menu, have each student choose a breakfast, lunch, snack, or dinner which contains a food from each of the four food groups (refer to information sheets in Lessons 14 through 18, if necessary).

Next, have the students prepare similar menus to contain *two* servings from the milk group, as well as one each from the other three groups. (The Stern/Denenberg book on fast foods may be of some help.)

5. High-Calcium Recipes

Prepare (in class, if possible) the "Cheese Party Tray" and "Great Greens" recipes on page 31. Serve as a snack. Encourage the students to try some of the cheeses or greens they are not familiar with. You might prepare voting cards so students can record their likes and dislikes and later include their preferences and the serving ideas in their notebooks or journals.

Related Activities

Related activities appear elsewhere.

- Lesson 14, activity 4: sampling high-calcium greens.
- Lesson 16, activities 1 (identifying calcium-rich dairy foods); 2 (suggesting nondairy sources of calcium); and 3 (food preparation: "Yo-Cot Parfait"). The worksheet for this lesson lets students rate their most and least favorite dairy foods.

B-right Ideas: Calcium Needs During Pregnancy

Growing a healthy baby is like building a strong house. The best materials have to be available at the right times. One of the most important building blocks of your baby's body is the mineral calcium. You also need calcium. It keeps your body healthy and strong.

Why Calcium?

You and your baby need calcium for many reasons. You both need it throughout the pregnancy for proper bone growth. If you have not yet reached your adult height and weight, you need it to keep growing. Your baby needs calcium so its teeth develop properly before birth. And calcium also keeps your teeth strong and healthy.

In the U.S., milk and milk products are the main source of calcium for many people. These foods include the following:

- cheese
- yogurt
- ice cream, ice milk
- cottage cheese
- all kinds of milk

Certain dark green vegetables contain a lot of calcium.

- broccoli, spinach, kale
- greens including collards, dandelion, turnip, mustard, and beet

Another good source of calcium is fish canned with the bones, such as herring, sardines, salmon, or kippers.

You and your baby need calcium for many reasons.

- You need calcium

—for proper bone growth, if you haven't reached your adult height and weight,
—to keep your teeth strong and healthy,
—to help your blood clot, and
—to keep your nerves and muscles strong and sound.

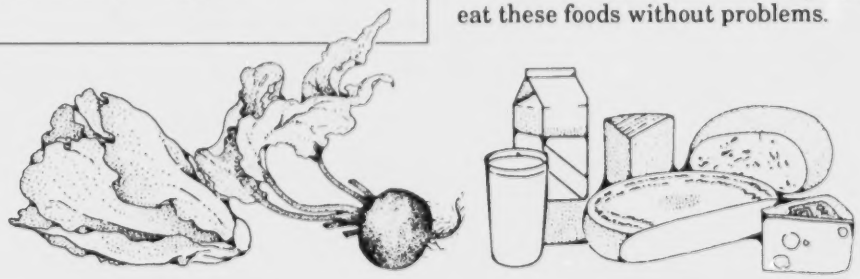
•Your baby needs calcium for these things, too, as he or she develops!

Lactose Intolerance

Some people cannot get their calcium from milk or milk products. They get nausea and diarrhea if they eat or drink these foods. This is because they cannot digest the kind of sugar that is found in milk. This sugar is called lactose, and the condition is called lactose intolerance.

Lactose intolerance is genetic. That means it is passed down from your ancestors. It is often a problem for people whose ancestors were African, Eastern Mediterranean, Asian, or Ashkenazic Jewish. These cultures don't use milk as a food after infancy. If people from these cultures eat milk or milk products, their bodies cannot tolerate the lactose.

Sometimes people from these cultures can eat milk products like cheese or yogurt. Cheese and yogurt have been fermented. The bacteria that make the cheese or yogurt have changed the lactose into another form. The people can then eat these foods without problems.



Pregnant women and all teenagers need 1,200 milligrams of calcium per day. You should eat four to five servings of calcium-rich foods each day.

Worksheet

The Puzzle Page

Below is a list of foods rich in calcium. But their letters are jumbled up. Can you figure them out? The difficult ones have clues. You might want to work in pairs or teams to solve the puzzle.

After you have unscrambled the words, put a star by those you have never tried. Put a circle next to those you have tried. Of the ones you have never tried, marked with a star, which would you like to try? Of the ones you have eaten, marked with a circle, which did you like? How was it prepared? Write the answers to these questions on the line next to the name of the food.

1. SCHEEE _____
2. LAEK _____
3. EIC KLMI _____
4. NOILDNADE RGNEES _____
   (a wild plant)
5. LKIM _____
6. LLODRSAC _____
   (greeny)
7. YOTGRU _____
8. TSRADMU SGRNEE _____
   (two colors)
9. CEI MEARC _____
10. LMASNO with NOBSE _____
11. TTAOGEC ESEEHC _____
12. NRTUPI GNEERS _____
    (*not* turned down)
13. IKRTULMETB _____
    (starts with "B")
14. DARINESS _____
    (little fish)
15. COOLCHETA LIMK _____
    (brown cow)

37

Cheese Party Tray

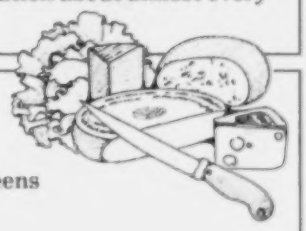
Equipment needed:
sharp knife
toothpicks
cutting board
small serving plates
large platter (optional)

Ingredients:
Select several kinds of cheeses from the following list, allowing about 2-3 ounces total for each student:

Gouda
Swiss
Cheddar (mild)
Farmer's cheese
Brick
Colby
Monterey Jack
Processed American or other mild processed cheese

Instructions:
Remove covering and cube the cheese into bite-sized chunks. Have a supply of toothpicks available. Serve cheese cubes on a tray or platter, the labels visible.

Suggestions:
Refer to *Completely Cheese* by Anita May Pearl (New York: Warner, 1979) for an interesting coverage of the history of cheese and for information about almost every kind of cheese produced.



Great Greens

Equipment needed:
stove
large heavy saucepan
cooking fork
knife

Ingredients:
1 1/2 pounds collard or other greens
3 or 4 strips bacon
1 clove garlic, minced
1/2 cup canned chicken broth
salt and pepper to taste

Instructions:
Rinse the greens and cut them into strips. Set aside. Cook the bacon till crisp. Remove it from pan, drain fat off (carefully!) and reserve 2 tablespoons for cooking, crumble the bacon, and set it aside.

Cook the greens, garlic and broth in the reserved bacon drippings for two minutes, stirring the whole time. Cover and cook another 15 minutes, stirring often, until greens are tender. Drain if necessary. Season to taste with salt and pepper. Top with crumbled bacon.

Suggestions:
Substitute frozen greens for fresh. Use other combinations of spices, or substitute onion or hot pepper (jalapeno, hot wax, etc.) for the garlic. These greens are great served with roast pork, ham, or sausages.

Lesson 4

Minerals—ZIIS For Zest and Zip

Focus

Several minerals (zinc, iodine, iron, and sodium) are important during pregnancy because each plays a special role in the growth of the developing baby. Several foods can be identified as good sources of each mineral.

Objectives

The student will be able to

1. identify zinc as a mineral necessary during pregnancy for the growth of the baby's nerves and skeleton and list two good food sources of zinc.
2. identify iodine as a mineral necessary during pregnancy to help both the mother and the developing baby use energy in the proper way and list two good food sources of iodine.
3. identify iron as a mineral necessary during pregnancy to produce the baby's blood and to increase the amount of the mother's blood and list two good food sources of iron.
4. recognize that sodium restriction (for example, in table salt) or the use of water pills (diuretics) is not recommended during pregnancy because sodium is needed in greater amounts by both the mother and the developing baby.

Teacher's Notes

Zinc, iodine, iron, and sodium, are all important minerals for the pregnant teenager. "ZIIS" is a mnemonic device for remembering them.

Zinc and iodine are two trace minerals that play special roles in pregnancy. The body needs them only in tiny amounts, but these substances nevertheless are crucial. Zinc, found in whole grain products, liver, meat, eggs, and shellfish, is necessary for proper development of the baby's nerves and skeleton. Iodine, supplied in iodized salt and found in seafoods and plant products grown on iodine-rich soils, is a component of the hormones from the thyroid gland. Iodine helps control growth of both the mother and the developing baby.

Iron is found in red meats (especially organ meats), dried peas and beans, whole grains, and some fruits (such as prunes and raisins). Vitamin C enhances the absorption of some forms of iron: a glass of orange juice would help the body use the iron in whole grain bread. The typical American diet is low in iron. An iron supplement is usually prescribed in pregnancy to insure an adequate intake for the necessary formation of new red blood cells (which carry oxygen) in the greatly expanded blood volume of mother and baby.

Sodium (i.e., as in table salt, baking soda, baking powder, monosodium glutamate) restriction is no longer thought to be appropriate in pregnancy since extra sodium is needed to maintain the balance of *normal* extra fluid retention. Diuretics (water pills) are not advisable. There is little danger of sodium deficiency in the U.S. diet, so obtaining the recommended two to three grams (about one teaspoon by weight of table salt, which is a combination of sodium and chlorine) per day is not difficult.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any assignments they complete at home.

"The Puzzle Page" for this lesson can be completed as a group exercise. Prepare a transparency of the worksheet or have each student follow the sheet. You might want to try using the puzzle as a diagnostic handout: see how much students already know, then distribute "B-right Ideas" to fill in the items they could not complete on their own.

References

Katt, Sally, ed. *"What's to Eat?" and Other Questions Kids Ask About Food.* Yearbook of Agriculture, 1979. Washington DC: U. S. Government Printing Office, 1979.

Worthington-Roberts, Bonnie S., and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation.* 4th ed. St. Louis, MO: Times, Mirror/Mosby College Publishing, 1989.

Suggested Activities

1. ZIIS Foods

PREPARATION and ACTIVITY. Based on what they learn about ZIIS foods from this lesson's information sheet, have students bring to class pictures from magazines that show food sources of zinc, iodine, iron, and sodium. Work with the class to prepare a ZIIS poster for use in later classes. Or work with them on preparing summary sheets about ZIIS foods to include in their notebooks or journals.

2. The Whole is More Nutritious than the Parts

This activity emphasizes that vitamin C enhances the body's ability to use iron.

PREPARATION and ACTIVITY. Students will refer to their copies of the Mini Food Composition Table in Appendix A. Write the words "Iron" and "Vitamin C" on the board and ask the class to suggest foods rich in each nutrient. List these under the appropriate headings.

Then ask students to refer to these lists and suggest single dishes or combinations of foods that are rich in both nutrients. Some ideas include

- tomatoes on a sandwich made with whole wheat bread.
- a fruit salad with cantaloupe or oranges and raisins.
- a hamburger with tomato slices.
- broccoli served with red or organ meat.
- orange juice with a whole grain muffin.

3. Salt, Salt, Everywhere

PREPARATION. Students should be made aware that sodium should not be restricted during pregnancy except by a physician's direction. However, make it clear that there are many and varied sources of sodium in the typical American diet.

Emphasize that sodium comes in diverse forms, including salt, soda, sodium bicarbonate, baking soda, monosodium glutamate, most baking powders, disodium phosphate, sodium alginate, sodium nitrite, sodium benzoate, sodium hydroxide, sodium propionate, sodium sulfite, and sodium saccharin.

As a homework assignment, ask students to examine labels on packaged foods they have at home, make a list of the sodium-containing products they found, and share it with the class. Encourage them to bring in labels from packaged foods that list sodium ingredients.

In the following class, ask them to list on the board different kinds of foods that are high in sodium. The USDA pamphlet *"What's to Eat?"* suggests the following categories of high-salt foods:

- foods prepared in brines, such as pickles, olives, and sauerkraut
- salty or smoked meats, such as lunch meats, corned beef, wieners, ham, sausage, salt pork, and smoked tongue
- salty or smoked fish, such as anchovies, herring, sardines, smoked salmon, and caviar
- snack items, such as pretzels, potato chips, salted popcorn, salted nuts, and crackers
- cheeses, especially processed ones
- canned and instant soups and meals-in-a-cup
- condiments, such as prepared catsup, mustard, and horseradish
- artificially sweetened soft drinks

The purpose of this activity is to stress to students that they already consume considerable amounts of sodium in their daily diet. While doctors no longer recommend sodium restriction during pregnancy, it is generally unnecessary to supplement sodium or increase intake of high-sodium foods.

4. Vitamin C and Iron Combination Foods: P.B.R.s

PREPARATION. Refer to the recipe sheet on page 37.

ACTIVITY. Students can prepare P.B.R.s and orange juice for an in-class snack. Ask them to refer to their Mini Food Composition Tables to investigate the various ingredients' vitamin C and iron content. Then ask them to suggest substitutions in the recipe which would keep the content of these two nutrients high.

5. Zesty ZIIS Bread

ACTIVITY. Prepare Zesty ZIIS Bread either before class or as an in-class exercise, if facilities are available. The recipe appears on page 38. Ask students to read the recipe and identify its sources of zinc (egg, whole wheat flour), iodine (iodized salt), iron (whole wheat flour, raisins), and sodium (salt, baking powder, baking soda).

B-right Ideas: Minerals—ZIIS for Zest and Zip

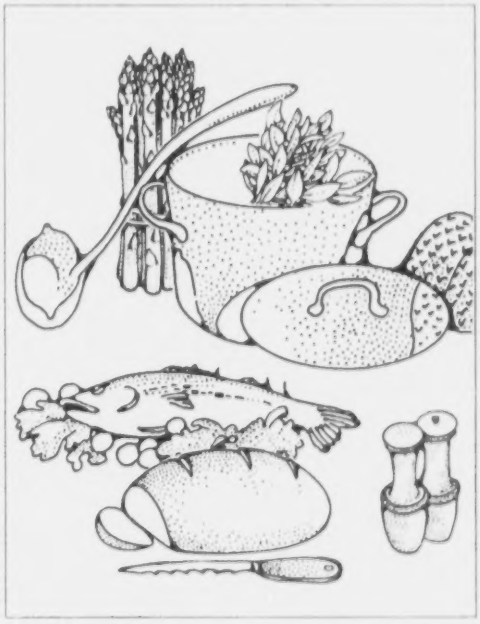
Z:	**Zinc**
I:	**Iodine**
I:	**Iron**
S:	**Sodium**

Zinc, iodine, iron, and sodium are four important minerals during pregnancy. A word to help you remember them is "ZIIS," which is formed by the first letter of each mineral.

Zinc

Zinc helps your baby's bones and nerves develop properly. It is found in

- liver and meat,
- eggs,
- shellfish (crabs, clams, scallops, etc.), and
- whole grain products.



Iron

Iron is very important in pregnancy. It helps you produce extra red blood cells. Red blood cells carry oxygen to you and your baby. These foods contain iron:

- red meats,
- spinach, asparagus, and collards,
- dried beans and peas, and
- some dried fruits: raisins and prunes.

Your doctor may prescribe iron supplements for you and your baby. If so, take them as directed: they're important! If your body doesn't get enough iron, you may get anemia. Anemia is when the number of red blood cells in your blood is too low.

Your body absorbs more of the iron in an iron-rich food if you combine it with a vitamin C food.

So, if you eat broccoli with your beef, your body absorbs more of the meat's iron thanks to the vitamin C in the broccoli!

Iodine

Iodine regulates the growth of your baby's body. It also regulates your own body's growth, if you are still growing. You get it in

- iodized table salt,
- seafoods, and
- plants grown in iodine-rich soil.

Sodium

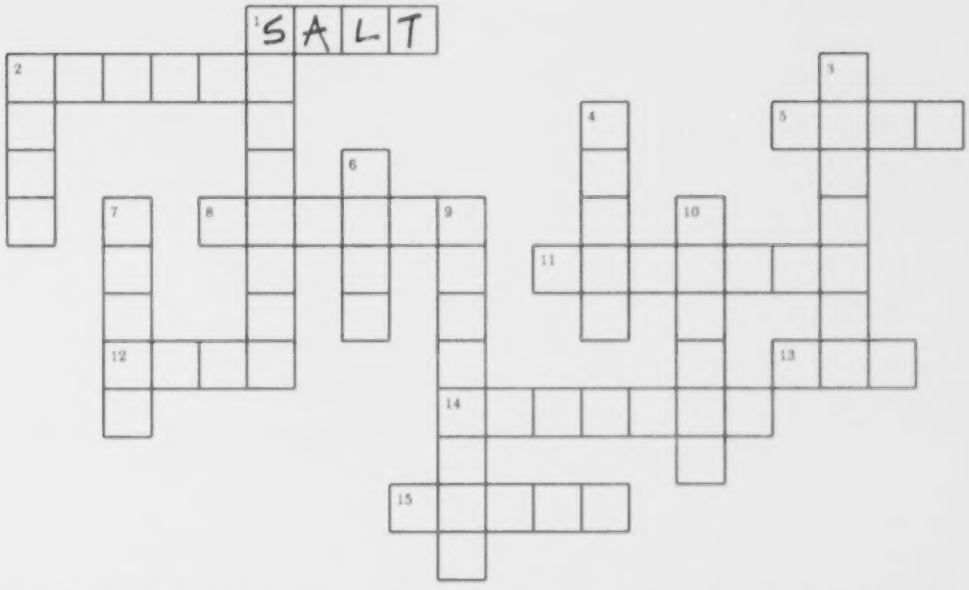
Sodium is everywhere in the American diet. It occurs naturally in most foods. You need it to balance the extra fluid your body retains during pregnancy. It is present in

- table salt,
- baking soda,
- baking powder, and
- many food additives.

You need sodium in your body during pregnancy. Do not take water pills (diuretics) while pregnant. Water pills remove fluid and sodium. You need both.

Worksheet

The Puzzle Page



Directions: The missing words in the sentences below fit into the puzzle above. Printed under the blanks are numbers that tell you where the missing words go. One blank is already filled in to get you started.

Zinc, _____ (2 across), iron, and sodium are very important _____ (9 down) in pregnancy. _____ (2 down) is needed to produce red _____ (15 across) cells. Good food sources are _____ (13 across) meat, organ meats such as _____ (7 down), dried beans and peas, and fruits like _____ (14 across) and prunes. Your body can absorb iron from your diet better if _____ (11 across) C-rich foods are eaten with the iron-rich foods.

_____ (8 across) is needed to maintain water _____ (3 down) in the extra fluids normally gained in pregnancy. The most common source of sodium in the U. S. diet is table SALT. _____ (10 down) powder also contains sodium. (1 across)

_____ (6 down) is important for your baby's bones and muscles. It can be found in _____ (12 across) and whole _____ (4 down) foods. Iodine can be found in iodized salt and in _____ (1 down). You and your baby need small amounts of iodine to regulate your _____ (5 across) of growth.

43

P.B.R.'s

(Peanut butter and raisin sandwiches)

Equipment needed:
table knives
sharp knife
cutting board
plates or napkins for serving

Ingredients:
for each double sandwich:
2 pieces of whole wheat bread, toasted, if desired
1/4 cup peanut butter, if possible the chunky style
2 Tbsp. raisins

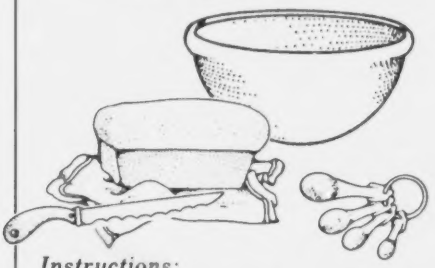
Instructions:
Spread the peanut butter generously on the bread or toast slice. Sprinkle on the raisins and top with second slice of bread or toast. Cut in quarters. Each quarter provides about 150 calories.

Suggestions:
Serve the sandwiches with orange or grapefruit juice. The vitamin C in the juice enhances your body's ability to absorb the iron in the whole wheat bread and raisins.

Recipe Page

Zesty ZIIS Bread
(Irish Soda Bread in disguise)

Equipment needed:
large bowls (2)
large mixing spoon(s)
board or space for kneading bread
8" round cake pans (2)
sharp knife
oven
racks for cooling (optional)



Ingredients:
2 cups unsifted enriched white flour
2 cups whole wheat flour
1/2 teaspoon iodized salt
3 teaspoons baking powder
1 teaspoon baking soda
2 cups raisins or currants
1/4 cup honey
1/4 cup vegetable oil
1 egg
1 3/4 cups buttermilk, or whole milk with 1 teaspoon vinegar added to sour the milk
vegetable oil or shortening for greasing pans
butter or margarine

Instructions:
Preheat oven to 375°F. In a large bowl, combine flours, salt, baking powder, and baking soda. Mix. Stir in raisins or currants. In another large bowl, combine honey, oil, egg, and buttermilk. Mix. Add about 2/3 of the flour mixture to the liquid mixture, stirring to make a sticky dough.

Put the rest of the flour mixture on a board. Scoop the dough onto the board. Knead the dough about 2-3 minutes until smooth. Divide the dough in half, and pat each half into a round loaf.

Grease and flour two 8" cake pans. Place a loaf in each. They will expand to touch the sides while baking. With a sharp knife, cut slits about 1/2" deep in the loaves in the shape of an "X." Bake the loaves for about 35-40 minutes in the 375° oven, or until they sound "hollow" when tapped. Remove from pans and cool slightly on the racks. Slice and serve warm with butter or margarine.

Vitamins—ACDFolacin Foods

Focus

Vitamins A, C, D, and folacin are particularly important during pregnancy because each plays a special role in the growth of the developing baby. Several foods can be identified as good sources of each vitamin.

Objectives

The student will be able to

1. identify vitamin A as necessary for the health of the mother (maintaining skin and internal organs) and for growth of the developing baby's body cells and list three good food sources of vitamin A.
2. identify vitamin C as important in the growth of the developing baby (bones, skin, and tendons) and list three good food sources of vitamin C.
3. recognize that the pregnant teenager needs two servings of vitamin C foods each day.
4. identify vitamin D as necessary for proper bone growth in the developing baby and list two good food sources of vitamin D.
5. identify folacin as a vitamin necessary during pregnancy to prevent anemia (insufficient red blood cells) and list three good food sources of folacin.

Teacher's Notes

Vitamins A, C, D, and folacin (folate or folic acid) perform various vital functions for the pregnant teenager and her developing baby. Vitamin A and vitamin D are necessary for proper tooth and bone formation in the fetus and maintenance of the mother's soft and bony tissues. Vitamin D helps in calcium absorption. Both vitamins are fat-soluble and can be stored in adipose (fat) tissue.

Butter, cream, eggs, fortified margarine, and green or yellow vegetables are good sources of vitamin A; vitamin D-rich foods include fortified milk and margarine and fish liver oils. The human body can itself produce vitamin D from exposure of the skin to the sun's ultraviolet rays.

Vitamin C and folacin (one of the B-complex vitamins) are water-soluble; thus, both mother and fetus need daily sources of these vitamins. Vitamin C is involved with formation of new tissue in general, and is specifically important for developing connective tissues. Vitamin C also improves the absorption of minerals such as iron from food. Folacin is necessary to prevent megaloblastic anemia and contributes to development of new red blood cells (hemoglobin in particular). Foods rich in vitamin C include citrus fruits and juices, melons, broccoli, green or chili peppers, tomatoes and potatoes. Folacin is found in leafy green vegetables, broccoli, oranges, whole grains, and liver.

Current recommendations for the teenager suggest an increase in vitamin C foods during pregnancy to two servings daily. Folacin supplements may be prescribed during pregnancy, due to the increased need.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any handouts they complete as take-home assignments. "The Puzzle Page" can be completed as an in-class, group exercise.

References

Elswick, Linda L. *Teenage Pregnancy and Nutrition: A Review.* Albany, NY: The University of the State of New York, 1980.

Worthington-Roberts, Bonnie S., and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation.* 4th ed. St. Louis, MO: Times, Mirror/ Mosby College Publishing, 1989.

Suggested Activities

1. A Full House

PREPARATION. Design a deck of ACDFolacin cards. On one side of 3" x 5" cards print the following, with one word or number to a card for a total of 12 cards:

vitamin A	1	breakfast
vitamin C	2	lunch
vitamin D	3	dinner
folacin	4	snack

ACTIVITY. Separate the deck into four vitamin cards, four number cards, and four mealtime cards. Each student picks one card from the number pile and one card from the mealtime pile. The number on the number card determines how many cards to choose from the vitamin pile. The combination of cards determines a meal she'll plan: she must suggest a menu for whichever meal she chose, including source(s) of all vitamins she has picked.

The "B-right Ideas" handout provides suggestions of food sources rich in each of the above four vitamins. Encourage students to think of nontraditional meals, such as a hamburger with lettuce and tomatoes for breakfast (folacin and vitamin C) or whole grain waffles with butter and syrup and orange juice for dinner (vitamin A, vitamin C, and folacin).

2. ACDFolacin Flapjacks

ACTIVITY. Prepare ACDFolacin Flapjacks; the recipe appears on page 44. Duplicate this recipe and suggest that students share it with those at home and report on how it was received. This recipe contains a source of each vitamin mentioned in this lesson. Have students identify the sources while preparing the recipe.

- vitamin A: butter, eggs
- vitamin C: orange juice
- vitamin D: fortified milk
- folacin: whole wheat flour, orange juice

Related Activities

Related activities appear elsewhere.

- Lesson 12, activity 2: vitamin C, vitamin E, and folacin content of foods.
- Lesson 14, activities 1 (tasting and rating vitamin A- and vitamin C-rich vegetables); 2 (tasting and rating vitamin A- and vitamin C-rich fruits); 5 (food preparation: "Orange Cooler"); and 6 (bringing recipes from home using A- and C-rich foods).

B-right Ideas: Vitamins—ACDFolacin Foods

These four vitamins are very important to you and your baby while you are pregnant:

Vitamin A
Vitamin C
Vitamin D
Folacin

All teens need foods containing these vitamins each day. Pregnant teens should take special care to get them.

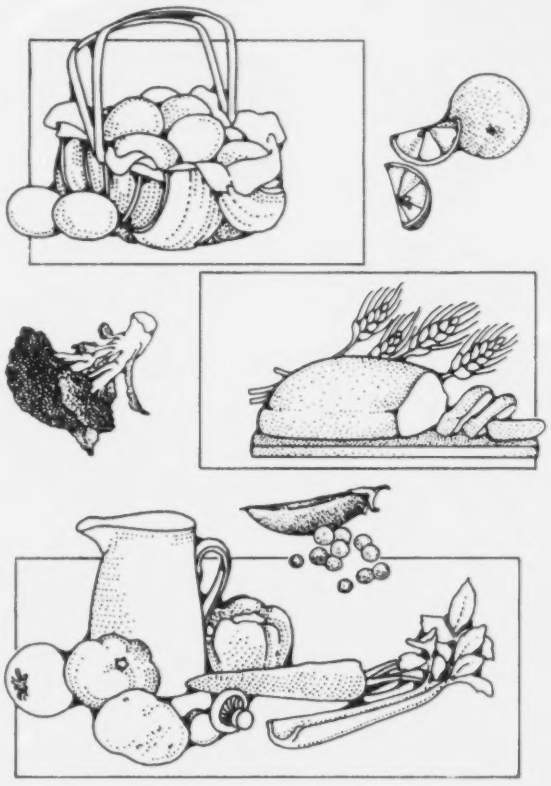
Vitamin A keeps your skin and internal organs healthy. It helps the cells in your baby's body develop. Eat it in these foods:
- green and dark yellow vegetables (such as broccoli, carrots, collards, dark leafy greens, spinach, and sweet potatoes)
- some fruits (apricots, peaches, and canteloupes)
- some dairy products (butter, eggs, and fortified margarine)

Vitamin C helps your baby's tissues form, especially connective tissue which makes healthy muscles. It keeps your muscles, skin, and internal organs healthy too. Vitamin C helps your body absorb minerals such as iron. If you eat a vitamin C-rich food and an iron-rich food together, your body will absorb more of the iron. Vitamin C foods include
- citrus fruits (such as lemons, oranges, limes, and grapefruits).
- some vegetables (green and red peppers, broccoli, tomatoes, and potatoes).

Vitamin D helps your body use the calcium you eat in different foods. Your baby needs this calcium to grow strong bones and teeth. You need it too. In the United States, milk and margarine are fortified with vitamin D. This means that the vitamin is added to these products.

You have a compound in your skin that produces vitamin D when you are in the sunlight. People with darker skin need longer exposure to sunlight to produce vitamin D. People with lighter skin need shorter exposure to to the sun to produce vitamin D.

Folacin helps your body develop enough red blood cells for you and your baby. If you don't have enough folacin in your diet, you can get a condition that leads to a type of anemia. Your doctor may provide a folacin supplement for you and your baby. Folacin foods include
- leafy green vegetables such as dark greens and broccoli,
- some fruits (oranges and avocadoes),
- whole grains,
- egg yolks,
- legumes (beans and peas), and
- liver.



The Puzzle Page

The sentences below tell you about vitamins that are very important during pregnancy. Unscramble the words to fill in each blank.

1. _____ (GEGS) and _____ (TTERUB) are animal products that are good sources of vitamin A.

2. Vitamin A and vitamin D help your developing baby to grow strong _____ (EETTH) and _____ (SEBNO).

3. _____ (BCIROCOL) and _____ (RNEEG EPPREPS) are both excellent sources of vitamin C.

4. _____ (SEGRANO) contain vitamin C and folacin.

5. Folacin helps your body produce red blood cells and also prevents _____ (AAEMNI).

6. _____ (LACCMUI) needs vitamin D to be absorbed properly.

7. You can get vitamin D from fortified milk or fish liver oils, but _____ (NLITHGSU) on the skin causes the body to produce vitamin D, too.

8. If you drink a glass of orange juice with whole wheat toast, the vitamin C in the orange juice helps your body absorb the _____ (RNIO) in the whole wheat.

9. Vitamin A helps your baby's _____ (YDOB) _____ (SELLC) grow properly.

10. _____ (MTSEOAT) and _____ (OPTTASEO) (they rhyme) are good sources of vitamin C.

Recipe Page

ACDFolacin Flapjacks

(adapted from *The Vegetarian Epicure*, by Anna Thomas)

Equipment needed:
electric griddle or fry pan
several large bowls
mixing spoons, pancake turner
measuring spoons and cup
small pan for melting butter
blender (optional)
plates and utensils for serving

Ingredients:
1/4 cup butter or margarine
2 eggs
3/4 cup vitamin D-fortified milk (whole or skim)
2 cups whole wheat flour
1/2 tsp. baking soda
1/2 tsp. iodized salt
3/4 to 1 cup orange juice
oil to grease frying pan or griddle

Instructions:
Melt butter or margarine in fry pan or on griddle with heat turned to low. (Or use a nonstick spray in place of butter or margarine.)

Mix together eggs, butter, and milk in a bowl or a blender. In another bowl, stir flour, baking soda, and salt together. Add the dry ingredients to the wet ingredients; mix only until dry ingredients are moistened. Gradually stir in the orange juice to the consistency of batter that you wish (using less orange juice makes a thicker batter; thicker pancakes take longer to cook).

Heat griddle or fry pan to pancake temperature (this varies with type and finish of pan), adding small amount of oil, if required. Use about 1/4 cup batter for each flapjack. Turn once when bubbles have appeared. Makes 9-10 medium flapjacks.

Suggestions:
Serve with syrup and butter or marmalade butter. Make marmalade butter by heating 1/4 to 1/2 cup of marmalade with 1/4 cup butter.

Wellness Issues

Lesson 6: Supplements and Other Drugs
Lesson 7: Dietary Solutions to Common Pregnancy Discomforts

Lesson 6

Supplements and Other Drugs

Focus

A wide variety of substances can be classified as drugs. Apart from their potential hazards to the pregnant teenager, all may have dangerous effects on the developing baby and should be avoided except with a physician's advice. Vitamins and mineral supplements are included in this category.

Objectives

The student will be able to

1. identify alcohol, caffeine (found in coffee, tea), nicotine (found in cigarettes, cigars), and street substances (e.g., marijuana, cocaine, angel dust) as possibly dangerous substances to the developing baby.
2. describe three characteristics of Fetal Alcohol Syndrome (FAS).
3. recognize an over-the-counter (OTC) drug and explain why it should not be used in pregnancy.
4. recognize that too much of any vitamin or mineral preparation during pregnancy might be harmful to the developing baby and should be used only with the advice of a physician.
5. recognize that smoking is harmful, not only to the mother's health, but has particular dangers for the developing baby.

Teacher's Notes

Any drug—nicotine, caffeine, alcohol, over-the-counter drugs (including vitamin and mineral supplements), prescription drugs, or street substances—has an effect on the pregnant teenager and her baby. Many of these drugs affect her baby because they cross through the placenta and circulate in the baby's bloodstream. The fetus is most sensitive to drugs during the first 12 weeks of pregnancy, when many of its organ systems are developing. However, different drugs have different effects—some minor and temporary, others major and permanent. Thus the pregnant teenager should use drugs only with her doctor's advice.

Alcohol has been shown to cause Fetal Alcohol Syndrome (FAS) in infants. Babies with this syndrome are born with a variety of physical and mental handicaps, such as a small head circumference, mental retardation, and a characteristic set of facial features. Babies born with FAS frequently are below average weight and height both before and after birth.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any handouts they complete as take-home assignments.

Activity 6, below, uses the "B-right Ideas" for this lesson as the background for an interviewing activity.

References

The American College of Obstetricians and Gynecologists. *Adolescent Perinatal Health*. 409 12th Street SW, Washington, DC., 1979.

Iber, Frank L. "Fetal Alcohol Syndrome." *Nutrition Today* 15(5). September/October 1980: 4-11.

Luke, Barbara. *Maternal Nutrition*. (Chapter 8: Influence of Maternal Smoking on the Course and Outcome of Pregnancy; Chapter 10: The Fetal Alcohol Syndrome). Boston: Little, Brown and Company, 1985.

Working with the Pregnant Teenager: A Guide for Nutrition Educators. Program Aid No. 1303. U. S. Department of Agriculture, U. S. Department of Health and Social Services, and National Foundation March of Dimes: U. S. Government Printing Office, 1981.

Suggested Activities

1. Treat with Care: Drugs During Pregnancy

PREPARATION. Collect pictures, containers, or packages of drugs.

- cigarettes, cigars
- wine, beer, hard liquor
- aspirin, cold preparations, antihistamines, vitamin and mineral supplements, and other over-the-counter drugs
- prescription drugs (especially tranquilizers, barbituates, and amphetamines)
- coffee, tea, chocolate, caffeinated soft drinks

ACTIVITY. Discuss the relative dangers of various drugs. Emphasize that all drugs may have effects on the developing baby and should be used only with medical advice. Nicotine and alcohol have negative effects during pregnancy, but are commonly used.

Ask students to suggest drugs not included in the display, coaching them to mention street substances. Encourage them to comment on the possible dangers of using these drugs during pregnancy.

- The effects of street drugs are not well-known or well-defined.
- Their use may encourage poor eating and general health habits.
- Considerable danger of infection exists (hepatitis, AIDS, etc.) with injected drugs.
- Unknown substances are added to the drug to cut the dose; these substances themselves may be dangerous.

Prepare a display using information from the "B-right Ideas" sheet for this lesson.

2. Fetal Alcohol Syndrome

PREPARATION. Obtain a copy of the *Nutrition Today* article listed above, in the References section, for a good discussion of Fetal Alcohol Syndrome (FAS) and pictures of afflicted babies.

ACTIVITY. Define FAS.

- It is a set of mental and physical deformities in babies caused by the mother's having consumed alcohol during the pregnancy. The signs include
  - —mental retardation
  - —head too small
  - —irritable baby
  - —abnormal formation of face
  - —childhood hyperactivity

—poor coordination

- The degree of the effects is directly related to the amount of alcohol per day the pregnant woman drinks.
  - —A safe level may be one drink per day (one mixed drink, or one beer, or one 5-ounce glass of wine).
  - —Consumption of five or more drinks per day has been clearly linked to FAS.
  - —One to four drinks per day may increase the risk of spontaneous abortion, lowered birth weight, unusual physical development, lowered IQ, and nerve damage.
- FAS can be prevented by avoiding alcohol or by limiting consumption of alcohol to no more than one drink per day.
- Binge drinking may be more dangerous to the baby than an occasional drink because of the high levels of alcohol to which the baby is periodically exposed.

Discuss with students whether consuming alcohol is worth the risk to the baby. Ask for alternatives to drinking alcoholic beverages. What nonalcoholic beverages can be substituted? How can use of alcohol be avoided in situations where there is pressure to use it?

3. Nutrition in Alcoholic and Nonalcoholic Beverages

ACTIVITY. Combine activity 2, above, with activity 3 in Lesson 18, which compares alcoholic and nonalcoholic beverages from a nutritional standpoint.

4. A Bad Combination

PREPARATION. Set up a display of a baby doll with a cigarette in its hand and an ash tray with butts nearby. Allow the students to view the display without comment.

ACTIVITY. Ask the students to react to what they see and to share their feelings. Then explain that nicotine crosses the placenta from the mother's to the baby's blood. Thus, when they smoke, their babies also smoke.

There is ample present evidence that smoking is not advisable during pregnancy.

- Smoking retards the growth of the developing baby.
- There is an increased chance that the baby will be small at birth. Although the baby may be able to make up some of the weight, it may never make up the lost height.
- Smoking one pack per day increases by 50 percent the chance that the baby will die during or soon after birth.
- Smoking may cut the mother's appetite. A less than adequate diet may mean a less than healthy baby and mother.
- If smoking can be stopped by about the fourth month of pregnancy, the risks become about the same as for a mother who has not smoked during pregnancy.

Ask the students to summarize their thoughts and recommendations about smoking during pregnancy. Have them prepare a poster for use in future classes.

5. Supplements: Yes and No

PREPARATION. Collect bottles, packages, or pictures of vitamin and mineral supplements. If possible, obtain both OTC and prescription containers and containers for single vitamin or single mineral supplements. Your pharmacist may be able to help.

Prepare a display for classroom use. The display should emphasize the following points:

- Vitamin and mineral supplements should be used only with a physician's advice.
- OTC supplements should not be used.
- Single vitamin or mineral supplements should not be used except under a doctor's care. Some vitamins such as A, D, and B_6 are toxic in high doses. An excess of certain minerals can prevent the body's proper use of others. For instance, too much iron may interfere with zinc absorption and vice versa.

ACTIVITY. Conduct an in-class poll on who is taking a supplement by doctor's orders, and ask if the doctor explained why the supplements might be needed. Refer to the display to highlight points made in this discussion.

Mention that the two nutrients most commonly supplemented in pregnancy are folacin and iron: they help increase the mother's blood supply. Refer to Lesson 4 for further information on iron and to Lesson 5 for folacin, or review these lessons if they've already been covered in class.

6. Drugs and Nutrition

PREPARATION and ACTIVITY. Invite a doctor, nurse, or dietitian to talk with the class about the nutritional dangers in using drugs during pregnancy. Equip the guest beforehand with a list of this lesson's objectives and the "B-right Ideas" handout on page 50.

To prepare students for the visit, ask them to compile a list of questions that they would like to discuss with the health care professional.

Related Activities

Related activities appear elsewhere.

- Lesson 12, activity 3: drugs and nursing.
- Lesson 18, activities 3 (comparing nutritional content of alcoholic and nonalcoholic drinks) and 4 (inviting a speaker on alcohol-related issues).

B-right Ideas: Supplements and Other Drugs

Many different substances are considered drugs. Since they may cross the placenta, they can also affect your developing baby.

Drug	Found in/Examples of
Alcohol	Wine, beer, and hard liquor
Caffeine	Coffee, tea, chocolate, and some soft drinks
Nicotine	Cigarettes and cigars
Over-the-counter drugs ("OTC" drugs)	Aspirin, cough syrup, vitamin pills, and mineral supplements
Prescription drugs	Anything your doctor prescribes for you
Street drugs, street substances	Marijuana, cocaine, crack, angel dust, etc.

Alcohol

Mothers who drink alcoholic beverages have an increased risk of developing Fetal Alcohol syndrome (FAS.) The more alcohol the mother drinks each day, the greater the risk to the baby. Babies with FAS may have the following symptoms:

- poor attention spans as children
- severe mental retardation or physical handicaps
- hyperactivity

This damage is permanent! It will last as long as the child lives, even into adulthood. The safest thing is to avoid alcohol altogether when you are pregnant. If alcoholic beverages must be consumed, limit them to

- one mixed drink OR
- one 12-ounce beer OR
- one 5-ounce glass of wine

in ANY ONE DAY during pregnancy.

Other Drugs

It isn't clear yet whether a high intake of caffeine can be harmful in pregnancy. It is a good idea to limit coffee, tea, chocolate, and caffeine-containing soft drinks while pregnant.

Street drugs can cause many problems. There is evidence that they can cause various kinds of damage.

- The baby may be born addicted or with brain damage.
- Use of these drugs encourages poor nutrition and health habits.
- Injected drugs can cause infections, such as HIV and hepatitis (a liver disease).

A Safe Rule to Follow:
Never take any drug of any kind while pregnant unless you talk to your doctor first. Your health and the health of your baby may be at risk.

The effects of street drugs are not well-defined. There may be other problems that no one knows about yet.

Cigarettes

Smoking retards the baby's growth, especially during the last half of pregnancy. Using cigarettes inceases the risk of the baby dying at or shortly after birth. The more cigarettes smoked each day, the higher the risk of damage to the baby.

OTC and Prescription Drugs

These drugs may cross the placenta and affect the baby. It isn't always clear how they damage the baby. Some of their effects are understood. Others are not. The safest thing to do is to avoid them unless a doctor prescribes them.

Vitamin pills and mineral supplements should only be used with your doctor's advice. Some vitamins are toxic (poisonous) in the wrong doses. For example, taking too much iron can interfere with your baby's ability to use zinc. If you take too many minerals, they can interfere with each other.

Drugs During Pregnancy

Drug	Effect	Use
Nicotine (including cigarettes, cigars)	Heavy smoking may lead to low birth weight babies, which can be related to more health problems. It is especially harmful during the second half of pregnancy.	Avoid
Alcohol (including wine, beer, whiskey, brandy)	Daily drinking of more than 2 glasses of wine, 2 cans of beer, or 1 mixed drink, can cause Fetal Alcohol Syndrome. Affected babies tend to have low birth weight, mental retardation, physical deformities, and behavioral problems (including hyperactivity, restlessness, and poor attention spans).	Avoid
Aspirin	During the last three months of pregnancy, frequent use may cause excessive bleeding at delivery and may prolong pregnancy and labor.	*Only* under medical supervision
Vitamin and mineral supplements (OTC or prescription)	Some vitamins in large doses can cause birth defects. Too much of one mineral can cause another to be used improperly.	*Only* under medical supervision
Other OTC drugs (including cold/cough medicine, antihistamines)	May cross the placenta; effects not well known.	*Only* with medical supervision
Tranquilizers	Used during the first three months of pregnancy, may cause cleft lip, cleft palate, or other deformities.	*Only* under medical supervision
Barbiturates	Mothers who have taken large doses may have babies who are addicted. Babies may have tremors, and be irritable and restless.	*Only* under medical supervision
Amphetamines	May cause birth defects.	*Only* under medical supervision
Caffeine (including coffee, tea, colas, cocoa)	Appears naturally in various foods and in many OTC drugs. Known to cross the placenta but role in human pregnancy still unclear.	Avoid or use sparingly
Street drugs (including cocaine, marijuana)	May cause addiction of the baby and cause it to have withdrawal symptoms after birth. Cocaine cuts down on the flow of nutrients and oxygen to the fetus. This can result in fetal brain damage and organ defects. Other effects of street drugs are unknown.	Avoid

The Puzzle Page

Directions: Using what you learned in class and from the "Supplements and Other Drugs" handout, answer the questions below. Fill in why each drug may be harmful to your developing baby and what you can do to avoid the drug. An example gives you a head start.

Drug	Why is this drug dangerous to my developing baby?	What can I do to avoid using this drug?
Aspirin	If I take it during the last three months of pregnancy, it can cause too much bleeding at delivery.	Use aspirin only if my doctor suggests it. Ask my doctor about taking an aspirin substitute.
Nicotine (cigarettes)		
Alcohol		
Over-the-counter vitamin and mineral supplements		
Prescribed vitamin and mineral supplements		
Street drugs (such as cocaine, marijuana, and others)		

Dietary Solutions to Common Pregnancy Discomforts

Focus

Changes in the diet may help lessen the common pregnancy discomforts of morning sickness, constipation, and heartburn. Unusual food cravings may be harmless, but eating nonfood items is not safe for the mother or her developing baby.

Objectives

The student will be able to

1. list four sensible dietary changes that might help morning sickness.
2. list three changes in the diet that might help constipation.
3. list three changes in the diet that might help heartburn.
4. describe the difference between harmless food cravings and pica (craving nonfood items like ice, starch, or clay) and describe the nutritional danger of pica.

Teacher's Notes

Morning sickness may occur during the early months of pregnancy but usually disappears after the third month. Its symptoms include nausea or vomiting upon awaking in the morning, and it can be relieved with certain dietary modifications. The pregnant teenager suffering from morning sickness might try all of these changes.

- Eat something dry before getting up.
- Eat a number of small meals rather than three meals per day.
- Drink fluids between, rather than with, meals.
- Avoid greasy foods, fried foods, and spicy foods.
- Eat lightly seasoned foods.
- Keep the room well aired when cooking.

Constipation is another common problem. It may be due to certain physical changes that take place during pregnancy. Other causes may include not getting enough exercise, not consuming enough fiber, and not drinking enough liquids. Relief can come from dietary changes.

- Eat more fruits and vegetables, including the skins.
- Drink more liquids, especially water, and chew foods thoroughly.
- Consume whole grain products such as bread, cereals, pasta.
- Exercise regularly; walking is an excellent way to do this.

Towards the final months of pregnancy, some mothers experience heartburn. This happens when the growing baby puts pressure on the mother's stomach. Suggest these remedial actions.

- Eat small meals often. Five to six per day is a good number.
- Reduce the amount of fatty, fried, or spicy foods in the diet.
- Wear looser clothing, especially when eating.

Pregnant teenagers should use medication for any of these problems only with a physician's advice.

Cravings for unusual foods is common in pregnancy. A craving is what seems to be an uncontrollable desire to eat a certain food. Some cravings are not harmful. However, students should be aware of strange food combinations that can lead to nausea or heartburn and should avoid foods that are low in nutrients and prevent them from eating foods of high nutritional value.

Pica (pronounced PIE-ka) is the desire to eat nonfood substances such as clay, laundry starch, ashes, or ice. Eating such items may interfere with proper intake of nutritious substances. For instance, clay eating may decrease the body's ability to absorb iron in other foods consumed. Eating large amounts of ice may lead to feeling full when, in fact, the body needs more nourishment.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over the handouts with the class or with individual students to emphasize particular points or to answer questions. If the handouts are used as a take-home assignment, encourage students to seek the help of others in the family or the living group.

The "B-right Ideas" sheet for this lesson lists background information students will need to complete the worksheet. "The Puzzle Page" activity requires students to keep a 24-hour log of one typical day's food intake. Since intake on weekdays generally differs from that on weekends, ask students to record what day they choose to log.

In class, ask students to identify particular foods that might cause common pregnancy problems and to suggest possible modifications of diet or habit that might ease them. Summarize by referring again to the "B-right Ideas" handout, to see which categories and suggestions would help alleviate the students' problems.

References

Corruccini, Carol G. *Relief from Common Problems: Nausea, Constipation, Heartburn.* Nutrition for Pregnancy and Breast Feeding Series. Sacramento, CA: California Department of Health, 1977.

Hess, Mary, and Anne Hunt. *Pickles and Ice Cream.* New York: McGraw-Hill, 1982.

Luke, Barbara. *Maternal Nutrition.* (see chapter 5: Understanding Pica in Pregnant Women.) Boston: Little, Brown and Company, 1985.

Worthington-Roberts, Bonnie S.; and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation.* 4th ed. St. Louis, MO: Times, Mirror/ Mosby College Publishing, 1989.

Suggested Activities

1. Remembrances

PREPARATION. Announce in class a period of time (several days to a week) when you want the students to write down in their journals or notebooks whenever they experience nausea, constipation, or heartburn. Ask them to record the problem, the date(s) it happened, and, if possible, what foods they had eaten that day.

ACTIVITY. Discuss how students can modify their diet and which particular foods may have led to the problem.

2. Foods that Relieve Constipation

PREPARATION. Collect labels, packages, or pictures of foods that can help alleviate constipation and organize a display of these. Or, involve the students in the collection and display preparation. Suggested foods include:

- raw fruits and vegetables with peels or skins left on
- seeds, such as sunflower, sesame, and pumpkin
- nuts, such as almonds, pecans, and walnuts
- legumes, such as peas, beans, and peanuts
- peanut butter and other nut butters
- whole grain breads, muffins, and other baked goods
- bran products, such as bran cereals (raisin bran, bran flakes) and bran muffins
- liquids such as water, fruit and vegetable juices, and clear soups

Explain that whole grains are processed into refined foods by removing the bran and germ. This is how whole wheat flour is made into white flour and brown rice is made into white rice. Enriched white flour or white rice has vitamins added, but much of the natural fiber has been removed.

Stress that sufficient fluid intake is necessary when consuming larger quantities of fiber. Be sure to include fluids in the display.

Prune juice and prunes contain a chemical which stimulates bowel activity. Since they work by this mechanism, and not because of their fiber content, they are not included in the list above.

ACTIVITY. Discuss different ways in which these foods could be included in the teenager's diet.

3. Mini Soaps

PREPARATION AND ACTIVITY. Prepare short scenarios illustrating possible cause and effect relationships between eating habits and the common pregnancy-related discomforts. Present them to students and conduct a discussion of how diet might be modified to relieve the problems.

Use these sample scenarios and dietary modifications to generate others.

- Sixteen-year-old Tanya is three months pregnant. She can't stand the thought of eating in the morning. When she gets up, she feels nauseous. By the time she gets to school, she feels better. But then she doesn't have time to eat. She knows that skipping breakfast isn't good for her and her baby's nutrition. What can she do?

— Possible solutions include eating something dry before rising, such as a cracker, to settle her stomach. Or, she might try packing a snack the night before to take to school and arranging with her teacher to eat it when her stomach is calmer.

- Denise is fourteen and feels hungry all the time. She is eight months pregnant, and she often has heartburn after eating. Last night she was so hungry by dinnertime that she couldn't resist a third hamburger. It made her feel terrible, but at least she felt full for awhile. What should she do?

— Possible suggestions might include eating smaller meals more often, eating something other than fatty or fried foods, or substituting other foods for the third hamburger, such as a piece of fruit.

4. The Undesirables

PREPARATION. Collect samples of dirt, laundry starch, ice and clay. Organize a display of these nonfood substances.

ACTIVITY. Discuss the issue of pica with the students; emphasize that these substances keep the mother from eating the amount of food that she needs to produce a healthy baby. Suggest that the students discuss the issue with those at home. Don't be judgmental if clay eating is an accepted part of pregnancy among some African-American students.

Contrast pica with cravings. Ask the students for their own experiences with cravings.

If any of the students report pica in their pregnancy, suggest that they discuss it with their physician or the school nurse at their next visit.

5. High Fiber Snacks

PREPARATION. A nutritious, high-fiber snack can be prepared by mixing together equal quantities of raisins, dry roasted nuts, and unsugared mini shredded wheat biscuits. Make a sample batch for the students and serve in small paper cups. Stress that the ingredients are helpful in preventing and alleviating constipation when consumed with adequate fluids.

This activity can be combined with Activity 2, "Foods that Relieve Constipation," to show students how delicious high-fiber foods can be.

Another high-fiber snack is P.B.R.s served with orange juice. See the recipe on page 37.

B-right Ideas: Dietary Solutions to Common Pregnancy Discomforts

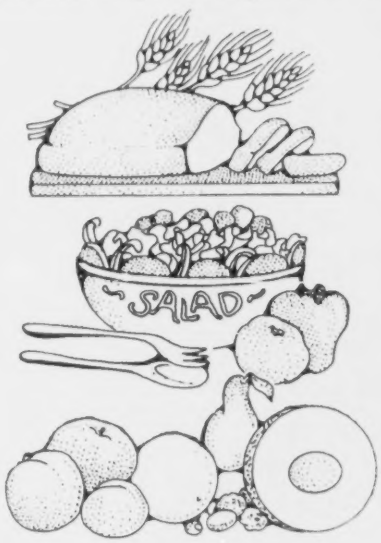
Four common discomforts of pregnancy are
- **nausea, or "morning sickness,"**
- **constipation,**
- **heartburn, and**
- **cravings.**

Many pregnant women, including teenagers, can have dscomforts that are common to many pregnant women. Modifying your diet in simple ways can relieve these problems. It can be as easy as adding or subtracting foods or changing when you eat!

Nausea

This problem usually occurs during the first three months of pregnancy and then disappears. It usually happens early in the morning, which is why it is also called "morning sickness." Try changing your eating habits to get relief.

- Eat something dry before getting up: crackers, dry cereal, or toast.
- Eat five or six small meals each days instead of three large ones.
- Drink fluids between meals rather than with meals.
- Avoid greasy or fried foods.
- Eat lightly seasoned foods. Avoid very spicy ones.
- When cooking, keep the room well-aired. This keeps food smells in the house from getting strong.



Constipation

Difficult bowel movements can be due to normal changes that take place in a mother's body during pregnancy. Other causes include lack of exercise, not drinking enough liquids, and not eating enough high-fiber foods.

Any of these tips can improve bowel function:

- Eat more fruits and vegetables, and leave the skins on.
- Drink more liquids, especially water.
- Use whole grain products, including breads and cereals.
- Exercise regularly. Walking is a good way to exercise.

Cravings

Cravings are when you want to eat a lot of one food, or when you want to eat strange combinations of foods. Cravings are not usually dangerous unless you eat so much it makes you sick or keeps you from eating nutritious foods.

One kind of craving is called "pica." This is the desire to eat things that aren't foods. Some of these substances include laundry starch, ashes, clay, or huge amounts of ice.

These substances contain no nourishment for you and your baby. They take up room in your stomach, so you have less room for the nutritious food you and your baby need.

Also, nonfoods can keep your body from absorbing nutrients from the foods you eat.

Heartburn

This problem is common in the last few months of pregnancy. Heartburn happens because the growing baby puts pressure on the mother's stomach. These actions can help give relief:

- Eat small meals but eat more often--five or six small meals each day, instead of three big ones.
- Eat less fatty, fried, or spicy food.
- Wear looser clothing, especially when you're eating.

The Puzzle Page

Diet Record for a 24-Hour Period

Date _____

Directions: Write down everything you eat or drink during this period. Use this sheet to see if the foods you eat can cause or prevent one of the problems you have been discussing in class. An example helps get you started.

Food	Amount	How Cooked/Prepared
Hamburger with bun, tomato slice, mayonnaise	1 hamburger patty 1 bun 1 tomato slice 1 tsp. mayonnaise	Fried

Making Smart Consumer Choices

Lesson 8: Nutritious Eating on the Run
Lesson 9: Shopping and Menu Planning
Lesson 10: Nutrition Information in the Community

Lesson 8

Nutritious Eating on the Run

Focus

If carefully chosen, fast foods, snacks, and school breakfasts or lunches can contribute substantial nutrition to the day's food intake.

Objectives

The student will be able to

1. pick a nutritious breakfast, lunch, or dinner from a fast food restaurant menu.
2. differentiate between snacks of high nutrient density and snacks of low nutrient density (i.e., nutritious versus non-nutritious).
3. evaluate a current school breakfast or lunch menu in terms of the five food groups, making suggestions for additions or substitutions to increase the nutrient content for the pregnant teenager.

Teacher's Notes

In 1984, 40 cents of each dollar spent for food was spent away from home. For the teenager, fast food restaurants, "brown-bagging," snacking, and school breakfast or lunch programs are the major sources of nutrition on the run. All sources can contribute to a nutritionally balanced diet if the food choices are made in an informed manner.

Fast food meals are generally high in fat, sugar, calories, and salt, but low in fiber, some vitamins (A, C, and folacin) and some minerals (iron and possibly calcium). These meals appeal to pregnant teens because they are convenient, are available everywhere, taste good, *and* appeal to other teens. The pregnant teenager can enjoy an occasional fast food meal and still not compromise her or her developing baby's health by remembering a few simple rules. The "B-right Ideas" page for this lesson provides a list of these rules. Appendix B of this publication contains a Fast Food Composition Table that students can use to improve the nutrition in their fast food meals. Duplicate and distribute the table for students to include in their journals or notebooks.

Likewise, "brown-bagging it" can contribute to a pregnant teenager's nutritionally sound diet. A sack lunch should include

- a food rich in protein,
- a fruit and/or vegetable (preferably vitamin A- or C- rich),
- a nutritious beverage, and
- an enriched grain, or whole grain product.

Since snacking seems to be the mainstay of many teens' nutrition, the pregnant teenager should try to eat snacks high in nutrition, as opposed to "empty calorie" ones. Empty calorie snacks can be categorized as those that fit into the fifth food group: foods loaded with sugar, salt, and fat, but low on protein, vitamins, and minerals.

USDA regulations specify standards for school breakfast and lunch programs. The popularity of these programs varies from school to school. School food service personnel can be a useful information resource about the child nutrition programs in your school and for possible daily menu modifications for the pregnant teenager.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek help from others in the family or living group for any handouts they complete as take-home assignments.

References

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United States Department of Agriculture. *Making Bag Lunches, Snacks and Desserts Using the Dietary Guidelines*. Home and Garden Bulletin 232-9. Available from your County Extension Office.

Suggested Activities

1. Fast Food Facts

PREPARATION. Obtain a menu from a local fast food restaurant. The restaurant manager may be able to help, or you and/or the students can copy the menu and prices for each item. Duplicate the menu for distribution to your students.

ACTIVITY. Ask the students for positive and negative thoughts they have when they hear the words "fast foods." Help them list and develop a variety of examples.

- Positive thoughts might include: convenience; tastes good; friends approve; it's better than skipping a meal; a good opportunity to eat and visit with friends.
- Negative thoughts: more expensive than homemade; high in sugar, salt, fat, and calories; low in fiber, some vitamins, and some minerals; little variety in food choices.

Distribute copies of the menu and ask students to choose what they would normally order for a particular meal and to list their choices in their journals or notebooks. Then, as a class, evaluate the choices while referring to the Fast Food Composition Table. Encourage students to recognize more or less nutritional aspects of each other's choices. Different students can try to choose more balanced or nutritious meals from the menu and suggest additions to the menu that would provide better choices.

Consult this guide's table of contents for other lessons that provide information on important nutrients and the five food groups. Stern and Denenberg's book, listed in the reference section above, is a helpful resource.

2. Fast Food Day

PREPARATION. This is a variation on activity 1. If time and finances permit, have the students eat a meal at a fast food restaurant, keeping track of their choices and the cost of

the meal in their journals or notebooks. Do activity 1, using and evaluating their actual choices.

ACTIVITY. Return to the restaurant at a later date, with the intention that the students put into practice what they learned in the activity. Ask them to keep track of their revised choices and the cost of the meal. Later, in class and as a group, evaluate the first and second menu choices with particular emphasis on cost.

3. Brown Bag Day

PREPARATION. Declare one day as "Brown Bag Day," and ask each student to prepare a sack lunch for eating at school.

ACTIVITY. Review the five food groups. See lessons 14 through 18. Assign students the responsibility of including in their lunch a food from each of the four nutritious food groups. If you have time to conduct a review of the food groups in class, ask students to be able to state why each food is an important component of their lunch.

On Brown Bag Day, students and teacher alike should describe their lunches to the class, explaining why each food was included (in terms of personal preference, nutritional value, cost, etc.). After lunch, have the class list or make a poster of important things to remember in packing a sack lunch that is nutritious, economical, and fun to eat.

4. Snacks are Okay

Write "Snacks are okay" on the board and ask the class to list nutritious, "okay" snacks. Have students explain which snacks are high in nutrition and why this is so. Lead the discussion toward the conclusion that there are differences between high and low nutrient density foods, and ask students to provide examples of each.

High nutrient density snacks include cheese, meats, peanut butter, pizza, milk products, and enriched or whole grain bread products. Low nutrient density snacks include candy; carbonated and alcoholic beverages; french fries, potato chips, and other fried or chip snacks; and pastry items such as Danish rolls, doughnuts, cakes, and pies.

If time and facilities permit, students might examine the preparation activities listed in the related activities sections and choose one to do in class. Or, the teacher can choose, prepare, and serve one of these recipes as a snack.

5. The School Fare

This activity requires review of the five food groups discussed in lessons 14 through 18.

PREPARATION. Obtain a copy of the school breakfast or lunch menu for the week. Some communities print the menus each week in a local newspaper; the school food service can provide copies.

ACTIVITY. Distribute menu copies to the students. Review the five food groups. As a class, evaluate the school meal menu. Figure out

- if serving sizes are adequate for the pregnant teenager's needs;
- whether specific foods are generally acceptable or not for the pregnant teenager's nutritional needs, preferences, etc.
- suggestions for improving the menus, such as

1. increasing fiber with the addition of fruits, vegetables, and whole grain products;
2. increasing available calcium by adding milk, milk products, or calcium-rich dark greens;
3. eliminating foods that might cause gas or indigestion;
4. decreasing number of fried or greasy foods served; and
5. for those who are having problems with nausea, allowing access to foods at different times and having available dry foods such as crackers and dry toast. (See lesson 7 for more information on common problems in pregnancy.)

Related Activities

Related activities appear in other lessons.

- Lesson 1, activity 5: food preparation: "Snacking by the Hundreds."
- Lesson 2, activity 4: food preparation: "Bagel Pizzas" and "Appetizing Bean Dip."
- Lesson 3, activities 3 (calcium in school breakfast of lunch menus), 4 (calcium in fast food meals), and 5 (food preparation: "Cheese Party Tray").
- Lesson 7, activity 5: food preparation: high fiber snack.
- Lesson 14, activity 6: food preparation: "Orange Cooler."
- Lesson 15, activity 7: food preparation: "Basic Granola and Fruit."
- Lesson 17, activity 4: food preparation: "Stuffed Celery Logs I and II."
- Lesson 18, activity 5: food preparation: "Creamy Tomato Sipper" and "Frosted Banana Drink."

B-right Ideas: Nutritious Eating on the Run

Fast Food Restaurants

Fast food menus usually offer many foods that are not the most nutritious choices. Fast foods may be high in fat, sugar, calories, and salt. At the same time, they may be low in fiber, some vitamins, and some minerals.

If you eat carefully at fast food restaurants, you can choose more nutritious combinations of foods. The following guidelines can help.

1. Fiber is important in your diet. But not many fast foods contain enough fiber. So if you eat a fast food meal, choose a coleslaw, salad, or beans on the side to help boost the fiber content. Or take along a piece of fruit to eat afterwards.
2. Vitamins A, C, and folacin are important, too. But many fast foods are low in these. To get these vitamins, order a salad with your pizza or burger. And make sure you get these vitamins in your other meals on days you eat fast foods.
3. If you are having a problem with nausea, don't eat fried foods. Fried chicken, fried fish, french fries, onion rings, and fried pies are oily foods. They will make you feel sicker, Skip them whenever you can. When you do eat them, don't eat a lot.

Even when you are pregnant, you can get nutrition "on the run." You can get nutritious foods from
- **fast food restaurants,**
- **your own brown bag lunch,**
- **school meal programs, or**
- **snacks eaten on the run.**

Brown Bag and School Lunches

To make your brown bag lunches nutritious, take a food from each food group. Remember that school breakfast and lunch programs offer balanced meals. Suggest to your teacher or the food service personnel ways to improve school breakfasts and lunches. These meals can be important in meeting your needs and the needs of your developing baby.

Snacks

When you snack,avoid "empty calorie" foods. These are foods that fit into the fifth food group. These foods are loaded with sugar, salt, and fat, but are low in protein, vitamins, and minerals. When you choose snacks, think of these four guidelines:

1. Choose snacks that are high in nutrients even in small amounts. Good examples are cheese, meat, or peanut butter.
2. Choose snacks that are high in fiber, such as whole grain crackers and raw or dried fruits.
3. Choose snacks that provide plenty of fluids, such as milk and fruit juices.
4. Choose watery crisp snacks such as raw vegetables and fruits. Don't choose greasy or fried crisp snacks such as chips, french fries, or onion rings.

General Guidelines

Ordering nutritious foods when eating out is easier if you keep these guidelines in mind:

- Milk or juice are good choices for a drink, rather than soft drinks. Soft drinks contain sugar (empty calories) and caffeine. Milk provides calcium and vitamin D. Juices can include vitamins A and D.
- Some fast foods or fast food meals include ingredients from the four nutritious food groups.

Pizza is one example. The crust is a grain; the cheese is from the dairy group; the tomato sauce, peppers, and other vegetables are from the fruit and vegetable group; and the toppings can include items from the meat groups.

The same guideline is true for a cheeseburger with lettuce and tomato or ribs with cornbread, greens, and a glass of milk. How many different combinations can you think of?

The Puzzle Page

Here are some suggestions for improving the nutrition in your fast food meals.

To increase calcium and possibly vitamins A and D

Choose milk, juice, or a milkshake (if you're trying to gain weight) instead of a soft drink.

To increase vitamin C

Order a green salad with your meal.

To increase calcium and vitamin A

Order a cheeseburger instead of a plain burger.

To increase fiber and vitamin C

Order a meal that includes coleslaw.

Substitute coleslaw for french fries.

Add extra tomato and lettuce to a hamburger.

To decrease the "empty calories" from fat

Remove the skin and fried batter from chicken and fish.

To help control nausea, if it's a problem for you

Avoid greasy foods like french fries, onion rings, fried chicken, fried fish, and deep fried pies.

To add fiber, vitamins, and fluid

Take along a piece of fresh fruit for dessert instead of having a dessert at the restaurant. Order a salad with your meal.

Below are several fast food menus. Using the suggestions above, list the changes you could make in each menu to make it more nutritious. There is no single right answer. Use your imagination!

Menu	Changes you would suggest	Why?
1. Hamburger French fries Milk		
2. Pizza with sausage and cheese Soft drink		
3. Fried chicken Mashed potatoes Roll and butter Deep fried apple pie Coffee		
4. Cheese taco Beef burrito Refried beans Root beer		
5. Chili cheese dog Fried onion rings Potato salad Lemonade		
6. Fried shrimp French fries Chocolate shake Deep fried lemon pie		

Lesson 9

Menu Planning and Smart Shopping

Focus

It can be easier for students to plan menus carefully, be smart shoppers, and save money by following a set of simple, easy-to-remember guidelines.

Objectives

The student will be able to

1. prepare a grocery list, choosing among various forms of the same food.
2. assemble ingredients for a particular recipe or buy food for a particular menu as economically as possible.
3. list three combinations of complementary vegetable protein foods or animal-vegetable protein foods and suggest a recipe using these protein sources.
4. state four shopping hints to keep grocery costs economical.
5. choose the most nutritious (nutrient-dense) products by referring to nutrition labels on food packages.

Teacher's Notes

Shopping on a limited budget may be frustrating, but simple guidelines can help the buyer receive maximum nutrition for minimum money. Students can use the following easy guidelines to achieve this goal:

- A shopping list helps limit purchases to those that are actually needed.
- Weekly newspaper advertisements by supermarkets indicate sales and seasonal low prices on produce items.
- Alternative sources of protein can contribute to savings. Combining complementary vegetable or animal-vegetable proteins can be far less expensive than animal protein sources alone.
- Planning meals several days in advance around items advertised in supermarket sales helps stretch the food budget.
- Shopping when not hungry helps limit impulse buying.

Tips for economical shopping while at the store include:

- Buy only what is on the shopping list.
- Use unit pricing information to choose between different packaged forms of the same food item. Buy the largest possible size that will be used up. But don't buy too-large quantities: if possible, request that fresh items such as large cuts of meat be repackaged into smaller units.
- Damaged packages of dry foods can be a good buy if their damage is superficial. However, never buy dented cans of food that are marked down. The danger of contamination is too great.
- Reading nutrition labels, ingredient lists, and other label information can help the shopper make informed purchasing choices.
- Convenience foods are generally more expensive than unprepared ones.
- Cents-off coupons can contribute to savings, but only when used for items that would have been purchased without the coupon. And it's important to remember that, even with the coupon, brand-name items generally cost more than store or generic brands.

• To preserve the nutritional quality of perishables and prevent waste of money due to spoilage, meat, dairy, and frozen foods should be put in the cart last. Get them home and in the refrigerator or freezer quickly.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for any work they complete at home.

"The Puzzle Page" for this lesson can be used as a group activity involving a class visit to a supermarket. Secure permission for the visit beforehand from the store manager. Explain that your class is studying ways to shop economically and that you'd like the students to become familiar with the products available in the store. Ask the manager if he or she would be available to participate in a tour of the market and to provide information on the store's layout and products.

Students should each have a copy of the worksheet and be familiar with its instructions before the visit. As a class, or in smaller groups or pairs, students should fill in the worksheet's columns B, C, and D while at the store.

After returning to class, students can calculate the approximate price per serving for each product. They may need help with this from the teacher or each other. The class can discuss which type of each food is the most economical to purchase and why. They should consider nutrient values of each type of food and how processing affects nutrition and price.

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Suggested Activities

1. Making Menus

PREPARATION. Collect several weeks' worth of grocery store or supermarket food advertisements. Sources may include newspapers and promotional flyers. This collection will be used again in activity 3, below.

ACTIVITY. Review the five food groups with the students, as necessary. (See lessons 14 through 18.) Have students work individually or in small groups. Ask them to use the ads from one week to devise economical menus. Each menu should include one food from the first four food groups.

Then, ask each student or work group to summarize why they picked particular foods. Coach them to emphasize points that review material covered in this lesson.

• Price is an important consideration, but may not be the only, or even the major, one. Personal likes and dislikes, the size or amount of an item on sale, and the distance to the store or easy transportation access to it may be important factors in food choices.

• The cost per serving of and need for each food are things to think about. Two questions that summarize these considerations are: "What does it cost?" and "Will it be used up?"

• Availability of other services at the same location might influence where to shop and even what to buy; the presence of an in-store bakery, a delicatessen, or shoppers' services such as carry-out and bagging all may influence shopping habits.
• Ease of preparation and time involved in preparation should be balanced against the use of convenience foods, which are generally more expensive than unprepared foods.
• Cents-off coupons can add to savings, but only if the item will be used or is normally purchased. Using discount coupons to purchase empty-calorie foods or to buy a product on impulse can disrupt a food budget.

2. Learning from Labels
PREPARATION. Show the students a label from a food product and a nutrition information label. Ask them to bring to class several examples of each from various products. Or, the instructor can collect a variety of these labels for classroom use.
ACTIVITY. Have students examine labels and nutrition information panels. Ask them to identify the various features of each mentioned in the summary. Discuss how to use this information in making food choices.

3. Cooking for Economy
PREPARATION. This activity uses the collection of grocery ads in Activity 1. Ask each student to bring to class one or several recipes or a cookbook which emphasizes cooking for economy. Sources for these recipes can include newspaper or magazine food columns, home, or the school or public library.
ACTIVITY. The students will scan the advertisements and choose one or two that contain foods they would like to serve and eat. Have them find a tempting recipe in the books or clippings that uses one or more of the featured foods. They can choose several main products (such as meat or meat substitute, dairy product, fruit and/or vegetable) and use the cookbook's index to find recipe ideas for these ingredients.

After everyone has found at least one recipe using their chosen sale items, have the students share the recipes they have chosen and explain why they chose it. Discuss the selections, highlighting their nutritional content and cost savings.

Related Activities

Related activities appear elsewhere.
• Lesson 2, activity 5: food preparation: "Bagel Pizzas" and "Appetizing Bean Dip".
• Lesson 4, activity 3: examining ingredient lists on labels for various forms of sodium.
• Lesson 15, activity 2: comparing labels on whole grain and white breads.
• Lesson 18, activities 1 (learning about the fifth food group by examining food labels and nutrition information labels) and 2 (finding "hidden" sugar on labels).

B-right Ideas: Menu Planning and Smart Shopping

The Shopping Game

Smart food shopping is like a game. If you follow a few simple rules, it's easy to win! Rules for the food shopping game help you save money. You can have fun figuring out the best buys.

Hints to Follow at Home

1. Look in the newspaper for food sale ads. Use sale foods by planning menus a few days in advance.
2. Make a shopping list.
3. Eat something. This helps you avoid buying things you might not really need. If you shop while hungry, everything will look good, even things you won't use.

Hints to Follow at the Store

1. Buy only what's on your list.
2. If unit pricing is available, use it to help decide which food items are your best buys. Unit prices tell you how much a food costs for a certain amount. For example, if there are two brands of spaghetti, one might cost more per ounce. Unit pricing will tell you how much each brand costs per unit so you can compare.
3. Buy appropriate-sized packages of food. If you can't use the giant economy size or repackage it into smaller amounts, don't buy it. Sometimes you can buy extra and freeze what you won't use right away. This works well with meats. Extra meat can be saved in meal-size portions. Freeze, label, and date these portions for future use.
4. Save money on protein sources. Use less expensive cuts of meat. Or combine meat with non-meat proteins. Or use complementary vegetable proteins.
5. Use store brands, generic foods, or bulk foods as much as possible.
6. Use coupons only if you'd buy the product anyway. Make sure the cost of the item with the coupon is less than the store brand, generic foods, or bulk foods.
7. Put frozen and fresh foods in your cart last. This preserves their freshness. Spoiled food wastes money.
8. Request "rain checks" when a sale item is no longer available.

Hints to Follow in General

Make it a habit to look in newspapers and magazines for coupons you can use and for economy recipes. Keep these ideas handy. When you read food ads and make up your menus and grocery list, look over these ideas.

Convenience foods—packaged ones or take-out—are generally more expensive than those you make at home. You have to decide whether the time you save is worth the price you pay.

✓ The Smart Shopper's Checklist

Before shopping:

- ☐ **Look for ads.**
- ☐ **Make a list.**
- ☐ **Eat.**

At the store:

- ☐ **Buy only what's on the list.**
- ☐ **Use unit pricing.**
- ☐ **Buy only what you need.**
- ☐ **Use complementary proteins.**
- ☐ **Use store, generic, or bulk items.**
- ☐ **Use coupons wisely.**
- ☐ **Put perishables in the cart last.**
- ☐ **Ask for "rain checks."**

In general:

- ☐ **Keep a coupon file.**
- ☐ **Keep a recipe file.**

Consumer's Guide to Food Labels

Label Information

Certain basic information must appear on a food label.
- the name of the product
- the net volume or net weight of the contents
- the name and address of the manufacturer, packer, or distributor
- a list of the product's ingredients

— The first listed ingredient is present in the largest amount. The last listed is present in the smallest amount.

— Additives must be listed. However, colors and flavors need not be listed by name. "Artificial colors" or "artificial flavors" may be all the label indicates.

— "Standardized foods" (such as mayonnaise, catsup, and ice cream) do not have to display a list of ingredients.

Nutrition Information

Nutrition information must appear if a nutrient has been added or if there is a nutritional claim for the food. Nutrition information must list
- calories, protein, carbohydrate, and fat per serving.
- percentages of U.S. Recommended Daily Allowances (U. S. RDAs) of selected nutrients.
- the size of one serving and the number of servings of food in the container.

Things to Know About Labeling Information

U.S. RDAs are the approximate amounts of protein, vitamins, and minerals that an average adult should eat every day to keep healthy. The U.S. RDAs on food labels do not make allowances for the increases needed in pregnancy.

Certain packaging standards apply. The product must be called by the "common or usual" name. Each ingredient must appear in the list of ingredients in descending order by weight. The food to be prepared from the package must be identified. And the foods or ingredients that must be added to complete the recipe must be stated, such as "eggs and oil" on a cake mix package. The word "imitation" must appear on the label when the product is not as nutritious as the product it resembles or for which it is a substitute.

Grades of food, such as meat and milk, are not based on their nutrient content. They indicate the quality of a product based on established USDA standards. Thus, Grade A and Grade AA eggs are not necessarily more or less nutritious than each other.

Manufacturers may "open date" their products to help consumers obtain fresh and wholesome food. Several kinds of dating are used: packing date, which is the date the food was placed in its package; pull or sell date, which is the recommended date for it to be removed from the shelves if not sold; and expiration or freshness date which indicates the length of a product's freshness.

All infant formula products must bear an expiration date. Mothers who plan to feed their babies these formulas should always check the expiration date. It helps ensure a safe product.

Some companies use code dating on products that have long shelf lives. In canned goods, this appears as letters and numbers stamped into the metal at the top or bottom of the can. Write to the manufacturer if you have a concern about the packing date of a particular product.

The Universal Product Code (UPC) is a small block of parallel lines of various widths. The code on each product is unique. UPCs allow store managers to use computers in checkout and inventory. UPCs contain no nutritional information.

The Puzzle Page

Pretend that friends are coming to visit tonight. You want to cook dinner for them and have decided to serve the menu below. But you're out of a few items. Before cooking the meal, you'll have to make a trip to the store. Your grocery list also appears below.

Dinner Menu	Grocery List
barbecued chicken	chicken
baked potatoes	potatoes
corn on the cob or kernel corn	corn
peas	peas
strawberry and pineapple chunk salad	strawberries
milk	milk

You want to buy the items on the grocery list as inexpensively as possible. Yet you don't want to give up nutritional quality. How do you know which products to buy?

To figure this out, fill out columns A, B, and C in the table below. Do this by checking the actual items at a grocery store.

When you get back to class, figure out columns D and E. If you need help filling in columns D and E, ask for help in class.

Put a star next to the items that you think are the best buys in terms of price. Put a circle around the items that you think are the best buys in terms of nutrition. What happens if a nutritional best buy is not the same as a price best buy? How do you make a choice? Be sure you can explain your choice to others in your class.

A Grocery Item	B Brand Size Price	C Price Per Unit (if available)	D Number of Servings	E Approximate Cost per Serving
Chicken whole parts (kind)				
Potatoes fresh frozen baked				
Corn on the cob fresh frozen				
Kernel corn canned frozen				
Peas canned frozen				
Strawberries fresh frozen				
Milk fresh whole powdered skim or low fat				

Nutrition Information in the Community

Focus

Various local and state agencies and individuals can help the pregnant teenager and teenage parent by providing answers to nutrition questions and by providing assistance in getting nutritious foods.

Objectives

The student will be able to

1. identify three local individuals or agencies and one state or federal agency that provide information about food for pregnant or nursing teenagers and their infants.
2. identify community agencies which can supply birth control information.

Teacher's Notes

Nutrition information and services for pregnant teenagers and teenage mothers and their infants are not uniformly available across Wisconsin. The Wisconsin State Department of Health and Social Services (DHSS) publishes a series of Infant Feeding pamphlets developed by public health nutritionists. The federally-funded Women, Infants, and Children Program (WIC) distributes these pamphlets. WIC is operated through DHSS and provides food vouchers and nutrition education to selected infants and mothers. The federal Maternal and Infant Care projects provide health care which complements the WIC programs.

The federal Food Stamp Program, usually administered locally at the county level, provides increased food purchasing power to lower-income households. County Extension Home Economists can offer answers to nutrition-related questions and provide pamphlets and booklets on nutrition during pregnancy, lactation, and infancy.

Some communities are fortunate to have local physicians, nurses, and nutritionists whose special interest is teenage pregnancy; these people are excellent sources of nutrition information or of information about other sources.

The National March of Dimes furnishes booklets on nutrition during pregnancy, with special reference to prevention of birth defects such as Fetal Alcohol Syndrome. The Wisconsin Clearinghouse for Alcohol and Other Drug Information and the American Cancer Society publish information on drug-related problems of pregnancy.

Local offices of family planning agencies either can provide birth control information to the new teenage mother or can refer her to other available services.

All of these organizations and more can be found in the local *Yellow Pages*.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over the handouts with the class or with individual students to emphasize particular points or answer questions. Encourage students to seek the help of others in the family or living group for handouts they complete as take-home assignments. Emphasize that the list of helpful individuals or agencies generated by "The Puzzle Page" activity should be retained for future use. Students could use the exercise to generate a small pamphlet for their own and future classes' use.

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Suggested Activities

1. Information Display

PREPARATION. Contact your county's Department of Human/Social Services and University Cooperative Extension office. Or, assign students to contact each agency.

Request a list of all programs that offer nutrition information or services to pregnant teenagers or teenage mothers and their infants. Ask for a list of all free or low-cost publications available through that office.

ACTIVITY. Prepare a display of pamphlets, booklets, and resource agency persons for the students. Summarize the services in a class discussion. Encourage students to add to the list of resources and to include the information in their journals or notebooks for future use.

2. WIC Resources

PREPARATION and ACTIVITY. Contact the staff from the local Women, Infants, and Children (WIC) Program. Arrange to have a guest speaker present a session on nutrition-related service(s) the program offers to pregnant teenagers or mothers and infants. Ask if the program makes pamphlets or low-cost publications available. If so, obtain copies before the speaker's visit. Students should look at these materials and write down at least one question relating to nutrition services or information to ask the visitor.

3. Dial-a-Dietitian

Check the *Yellow Pages* or inquire at your local hospital whether your area has a "Dial-a-Dietitian" service. If one is available, explain the service to the students. Have each student formulate a question about nutrition during pregnancy or lactation or infant nutrition. Each student will then call the service, ask her question, and share the answer with the class. Answers should be copied into students' notebooks or journals for later reference.

If the class has access to a telephone during school hours, and if these hours coincide with the service's, this activity can be done in class.

If your area lacks such a service, invite a hospital dietitian to address the class on some aspect of teenage or infant nutrition and to answer students' prepared questions.

4. Family Planning Information

PREPARATION and ACTIVITY. If school policy permits, repeat activity 3, contacting a family planning agency. Request that a representative visit the class and furnish printed and oral information on topics of interest to the students.

Related Activities

Related activities appear in other lessons.

- Lesson 6, activity 6: guest lecturer: nutritional danger of drugs during pregnancy
- Lesson 11, activity 4: guest lecturer: preparing baby formula demonstration
- Lesson 13, activity 3: preparing homemade baby food demonstration

B-right Ideas: Nutrition Information in the Community

Where can you get nutrition information or services for you and your baby? Your local community has a network of resources you should know about!

There is a big network of people interested in helping pregnant teenagers, school-age parents, and their children. If you feel uncomfortable contacting them, your teacher will help you the first time. Many agencies exist to provide you information. Some also provide services. They can suggest where to look for more help, if they can't give you the help you need.

Basic Information Sources

Start with your county Department of Human or Social Services and your county extension home economist. They may be able to answer any questions you have and can refer you to other agencies or individuals. If they can't answer your questions, they'll know who can.

Help with the Food Budget

The WIC Program provides food vouchers for particular foods. These vouchers are for women whose pregnancies are "at risk." They are also for women and infants at risk. This program is federally funded and is run by state and county agencies.

Another federally funded program you should know about is the Food Stamp Program. Food stamps can give you increased purchasing power if your income is at certain levels.

Health-Care Information

Some agencies provide information borchures on different nutrition and drug problems during pregnancy. These health-care people are excellent resources for you and your baby. Use them when you need them. And recommend them to other pregnant teens and teenage parents.

Family Planning

Your area's family planning agencies can provide birth control information or can refer you to other services. Check the *Yellow Pages* for these.

The Puzzle Page

Directions: Fill in the table below with names of agencies and people who can give you information on nutrition or other services. Think about what you learned in class. Also remember personal experience, the advice of others, and what you discovered in your own research in the *Yellow Pages* or other places.

Five examples get you started. Keep this sheet in your journal or notebook for later use.

Agency/Group/ Individual	Phone Number/ Location	Services/Information Available
1. Women, Infants, and Children (WIC) Program		food vouchers for "at-risk" pregnancies and mothers/ infants
2. County Dental Society		information about "baby bottle caries" and fluoride supplements
3. Food Stamp Program		
4. Your county's department of health and social services		information on services in your area; publications on infant feeding
5. County Cooperative Extension		information on infant development and feeding
6.		
7.		
8.		
9.		
10.		

Postpartum Nutrition in Teenage Pregnancy

Lesson 11: Which is Best? Bottle or Breast?
Lesson 12: Nutrition During Nursing
Lesson 13: Introducing Solid Foods to the Baby's Diet

Lesson 11

Which Is Best? Bottle Or Breast?

This lesson should be used *only* if the mother is planning to keep her infant.

Focus

Breast-feeding and formula feeding by bottle are both reasonable ways for the teenage mother to feed her young infant. However, the teenaged mother must understand the advantages and disadvantages of each method before she can make an informed choice as to which is appropriate for her and her baby.

Objectives

The students will be able to

1. list three advantages and three disadvantages of both breast-feeding and bottle-feeding.
2. make a hypothetical ("Suppose that . . ." or "What if . . .") choice and defend that choice for her particular situation.
3. demonstrate or describe a proper method of preparing baby formula.
4. identify unmodified cow's milk as an improper food for a young infant.
5. recognize that vitamin/mineral supplements should be given to the infant only on the advice of a medical professional.

Teacher's Notes

No single answer exists to the question of whether breast- or bottle-feeding is better. the teenage mother should carefully consider the advantages and disadvantages of both feeding methods. This consideration will help her make the best decision for her and her baby.

For most infants, breast milk is nutritionally superior to infant formula. Besides containing a balance of nutrients essential for the baby's growth, breast milk includes substances formulas lack that protect the infant from certain bacteria and promote the digestion of fats. Some young mothers are not comfortable breast-feeding. Members of their families may not support the practice, or the mothers may not be psychologically or socially mature enough to breast-feed. Nurses and doctors can assist the new mother in learning how to breast-feed a newborn. Breast-feeding can be a special time for mother and child, but the adjustment for both of them can take time.

Another possibility for new mothers is expressed and bottled breast milk, which permits the infant to consume breast milk when the mother is not available for feedings. This option may be suitable for some teenage mothers.

Commercial formulas attempt to copy the composition of beast milk. Infants fed commercial formulas seem to grow and develop well. These formulas are available in several forms: ready-to-feed, liquid concentrate, and powder. The concentrate and powder must be prepared properly to ensure balanced nutrition and a safe formula. An infant never should be put to bed with a formula- or juice-filled bottle: the milk that collects in his or her mouth will promote tooth decay (or "baby-bottle caries").

A combination of breast- and bottle-feeding may be a reasonable alternative for some mothers once breast-feeding is well established.

Unmodified cow's milk or diluted evaporated milk are inappropriate foods for a young infant. Both are too low in iron and too high in phosphorus, salt, saturated fats, protein, and minerals for an infant's nutritional needs.

Depending upon the method the mother chooses, vitamin or mineral supplements may be required for the infant. A physician, nurse, or dietitian should always be consulted before using such preparations.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over the handouts with the class or with individual students to emphasize particular points or to answer any questions. Encourage students to seek the help of others in their family or living group for any handouts they complete as take-home assignments.

"The Puzzle Page" for this lesson is designed to be completed as a cooperative exercise involving students' family members and friends. It involves an oral history exercise in which students compile information on methods of infant feeding as practiced by women they know.

To prepare students, announce that you want them to collect information that will be assembled later into a mini-history book called, "A History of Infant Feeding." Some students may need more coaching than others to understand how to go about interviewing a person for this information. Ask them to try to speak to women of different generations and backgrounds, if possible. Allow them at least two evenings to arrange to gather the information.

When students have completed their worksheets, the class can gather and compile all of the experiences. Perhaps each student could prepare and contribute one page. Or, each student might prepare her own booklet. When the information has been compiled, conduct a class discussion of how patterns of infant feeding have changed over time (across generations) and vary by culture. (Chapter 1 of Fomon's *Infant Nutrition*, listed below, provides useful information on the topic of intergenerational feeding patterns.)

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Suggested Activities

1. Breast vs. Bottle

PREPARATION. Collect pamphlets about breast- and bottle-feeding from sources including

- WIC agency,
- your state's department of health and social services,
- your county extension home economist, and/or
- pharmacies.

Companies that produce infant formula provide promotional materials. Some contain good information, but be aware that these materials are designed to market a particular product.

ACTIVITY. Distribute the pamphlets and allow students enough time to read them.

While they are reading, place two columns on the board, one headed "Breast," the other, "Bottle." Divide each column into two subcolumns marked "Advantages" and "Disadvantages." When students have finished reading, ask them to discuss the advantages and disadvantages of each method and then to suggest ideas to list under each heading. Ask them to rely on the pamphlets, what they have learned in class, and their own outside experience or learning.

They may copy the lists into their journals or notebooks, or the class might make a poster for class display and future use.

An extension of this activity involves a discussion in which each student considers how she plans to feed her baby and why. This activity, like the rest of this lesson, is not appropriate for mothers who plan not to keep their infants. The discussion should be conducted only if students feel comfortable participating. Encourage differences of opinion by explaining that each mother must decide what is best for her and her baby, based on the best information she can gather. Also point out that, for some mothers, a combination of bottle- and breast-feeding may be appropriate, once the mother's breast milk has become established and if the bottle-feeding doesn't reduce the amount of breast milk produced.

2. Card Game 1—Pros and Cons

This activity will reinforce the information in activity 1.

PREPARATION. Construct two decks of index cards, eight cards per deck.

- Deck One. On one side of four cards, print the words "Breast Feeding." On one side of the other four cards, print the words "Bottle Feeding."
- Deck Two. On one side of four cards, print "Pro." On one side of the other four cards, print "Con."

ACTIVITY. Shuffle each deck, keeping the two decks separate. Each student picks one card from each deck and presents a pro or con statement for whatever method of feeding she draws. Coach the student, if necessary, by providing an introductory statement explaining the concept for which she must give an example. For instance, if she pulled a breast-feeding card and a con card, she might point out that one disadvantage of breast-feeding is that others can share in feeding her baby only if the milk is expressed and bottled.

3. Card Game 2—What If?

PREPARATION. Prepare a deck of index cards, with one side of each card listing a hypothetical situation related to infant feeding. Twenty cards' worth of situations should provide ample material for this game. Ideas include

- What if the mother's immediate family does not support her wish to nurse her baby?
- What if the mother is in good health and plans to stay home for the baby's first year?
- What if the mother is in school, but can breast-feed her baby several times per day?

ACTIVITY. Each student draws a card, reads the situation aloud, and explains what she would do in that situation and why. Other students may wish to offer other opinions, but make it clear that each is entitled to her opinion.

4. Preparing Infant Formula

PREPARATION and ACTIVITY. Contact a WIC, nutritionist, pediatric nurse, public health nutritionist, or dietitian, and ask whether he or she would be willing to provide your class with a demonstration of preparing infant formula. Inquire about pamphlets on the topic that might be available for students to read.

To prepare for the visit, students should read the pamphlets. In class, generate a list of questions to ask the visitor. If necessary equipment is available, the students can later practice correct techniques they learned in the demonstration.

B-right Ideas: Which is Best? Bottle or Breast?

Milk is your baby's first and best food. Two ways to nourish your baby are breast-feeding and bottle-feeding. Which method is best? You will make the choice that is right for you and your baby. But first, you need to consider the advantages and disadvantages of each way.

Which method of feeding your baby is best? You will make the choice. But you need to consider the advantages and disadvantages of each.

Breast-feeding

Nutritionally, the best food for almost all babies is breast milk. Some infants can't tolerate their mother's milk. This is due to genetic or allergic conditions. But most babies thrive on breast milk.

Breast milk is always warm, clean, and ready to use. It contains the right proportions of nutrients for your baby's growth. These nutrients include protein, fat, carbohydrate, minerals, and vitamins, in just the right balance. Breast milk helps protect your baby against some bacteria, and it helps his or her digestion as well.

Remember how your body laid in stores of fat during pregnancy? Breast-feeding will help you lose some of the weight you gained while you were pregnant. And many mothers prefer breast-feeding because it lets them be especially close to their babies.

Commercial Formulas

Sometimes, new mothers have to be at work or school for much of the day, away from their babies. Others cannot feed a baby except with formulas or expressed breast milk. Or sometimes, a new mother finds that those close to her don't support her breast-feeding her baby.

Store-bought formulas are a reasonable alternative to breast milk. They are similar to human milk in their make-up and digestibility. Formulas are generally more expensive than the food you must eat to be able to breast-feed. Formulas take time to prepare. But they do make it possible for someone else to feed your baby for you.

When preparing formulas, it's important to follow the directions carefully. This will ensure your baby gets nutritionally balanced milk that's safe to drink.

Never leave a bottle of formula with your baby when he or she is in bed. The formula will collect in the baby's mouth as he or she sleeps. This can cause tooth decay, also called "baby-bottle caries."

Other Kinds of Milk

Whole cow's milk and diluted evaporated milk are not good foods for your baby. The proportion of nutrients in these mlks is not suited to a young infant. They are too low in iron and too high in phosphorus, salt, saturated fat, protein, and some minerals. A baby fed these milks will not grow and develop properly.

Supplements

Depending on the feeding method you choose, your baby may need supplements of vitamins and minerals. But do not give your baby supplements without asking your physician, nurse, or dietitian if it's necessary to do so.

Asking for Help or Tips

Different people can help you make this important decision. The nurse or doctor at your hospital or clinic will help you learn how to breast-feed your baby. For some new mothers, it can be frustrating at first. But it gets easier each time.

Ask your mother, grandmother, or other relatives whether they breast-fed their children. They may help you decide whether this is the right choice for you. Some people may not support your desire to breast-feed. Remember that this is one of the many things to keep in mind as you decide what is best for you and your child.

The Puzzle Page

Directions: In this activity, you will be a historian. You will gather information from women you know about how they chose to feed their babies. Later, in class, you will put this information together as a booklet.

The following steps will help you do the interviews;

1. Seek out family members or friends and ask if they would like to share their experiences with you.
2. Ask each woman whether she breast-fed or bottle-fed her infants. Write her name in column A. Write the number of children she fed and how she fed them in column B.
3. Ask her what years she fed her infants. Write that in column C.
4. Ask her how she made her feeding choices. Write that in column D.

A sample is provided to help you get started.

Use this information in class to make a booklet called "A History of Infant Feeding." You and other students can put the stories you've gathered in the booklet.

A. Person/ Relationship	B. How Many Infants? How Fed?	C. Years	D. Why?
1. Susan, great aunt	breast-fed 7 children	1920-1935	Bottles weren't available in her rural town so she never considered any other way.
2.			
3.			
4.			
5.			

Lesson 12

Nutrition During Nursing

This lesson should be used *only* if the mother is planning to keep her infant.

Focus

A nursing mother's diet directly affects the quality and quantity of her milk. Health-care professionals recommend increasing specific nutrients and caloric intake. Substances eaten by the mother can be transferred to her milk, including any drug she ingests.

Objectives

The student will be able to

1. recognize that to produce an adequate supply of high quality milk a nursing mother should increase her energy intake by about 500 calories per day, her protein intake by about 20 grams per day, and her fluid intake by a total of two to three quarts per day. These amounts represent increases over and above levels required during pregnancy.
2. list a food and the amount of it necessary to meet a nursing mother's increased needs for calories, protein, and fluid.
3. identify vitamin C, vitamin E, and folacin as nutrients that must be increased in a nursing mother's diet and list two food sources of each nutrient.
4. recognize that any drug that a nursing mother takes can enter her milk and be consumed by the infant. This includes the hormones in oral contraceptives.

Teacher's Notes

To maintain her own body tissues and growth and to produce sufficient high quality milk for her infant's needs, the nursing teenager must increase her protein, energy, and fluid intakes. A poor maternal diet can have various effects on the mother, including hindering her from returning to an acceptable condition of postpartum health.

While the protein, fat, and carbohydrate levels of her milk are not significantly changed if her diet is inadequate, the volume of breast milk she produces may decrease. Also, the vitamin levels in the milk may decrease, potentially endangering the health of her infant. Therefore the nursing mother needs to increase her intake of vitamin C, vitamin, E, and folacin. Lesson 5 in this guide includes further information on these nutrients and foods that contain them.

Drugs should be used during the nursing months only with the advice of a physician. Oral contraceptives contain hormones that can reduce her milk supply and can be transferred to the infant through her milk. Thus, an alternative form of birth control should be used while nursing. Nursing itself is not a form of birth control.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read over the handouts with the class or individual students to emphasize particular points or answer questions. "The Puzzle Page" can be completed as a group exercise in class and students encouraged to generate several answers for each item. Suggest that students prepare several answers for each of the items on "The Puzzle Page." This exercise can also be completed as a take-home assignment with the help of others in the family or living group.

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Corruccini, Carol G., and Patricia E. Cruskie. *Nutrition During Pregnancy and Lactation*. Sacramento: California Department of Health, 1975.

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Farb, Peter, and George Armelagos. *Consuming Passions: The Anthropology of Eating*. Boston: Houghton Mifflin Company, 1983.

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Suggested Activities

1. What's My Choice?

PREPARATION. Collect empty cartons and containers of various packaged beverages. Label each with the protein content and calories in three cups of product. The list below includes suggestions.

	Calories	Grams of Protein
whole milk	475	25
chocolate milk	640	25
skim milk	270	24
2% milk	360	24
orange juice	330	6
beer	300	3
cola drink	290	0
coffee	25	0
vanilla shake	900	30

Use nutrition information on the labels if the containers have them.

ACTIVITY. Inform students of the recommended daily increases of nutrients during nursing: 500 calories and 20 grams of protein over and above levels required during pregnancy. Then ask them to conclude which beverage would best help them meet these increases. From the information listed above, milk is a good choice. Students may prefer chocolate milk, which is reasonable even though the calorie content is a bit high.

2. Nutritious Dishes

PREPARATION. This activity is based on the "B-right Ideas" handout in this lesson.

ACTIVITY. Ask students to refer to the handout for suggestions on how to increase vitamin C, vitamin E, and folacin in their diets while nursing. Then have them suggest ways of combining different foods in a single dish or recipe to provide all three nutrients. Emphasize that their suggestions should be ones they'd enjoy eating. If necessary, provide examples to get them started.

- chef's salad: lots of greens (folacin), vegetables high in vitamin C, hard-boiled egg, and an oil-based dressing
- a drink made with orange juice, milk, a raw egg yolk, and a touch of honey, all whipped up in a blender
- a cheese, mayonnaise, and sliced tomato sandwich on whole grain bread
- orange and grapefruit salad sprinkled with wheat germ.

If facilities permit, prepare a simple dish in class.

3. I'd Never Give My Baby Drugs!

PREPARATION. Collect drug containers, pictures of drugs from magazines, or samples of common drugs. Organize a display with or for the students that indicates that all these substances are drugs. These may include

- over-the-counter drugs,
- prescription drugs (including oral contraceptives),
- street drugs, and
- daily use drugs such as caffeine (in tea, coffee, cola drinks, and chocolate), nicotine (in cigarettes), alcohol (in beverages and in medicines such as cough syrups); and vitamin or mineral supplements.

ACTIVITY. Emphasize that all of these substances are drugs and will appear in varying degrees in a nursing mother's milk if she consumes them. Elicit students' opinions about using these substances during nursing, considering the fact that these drugs can be passed to their infants through their milk.

4. Myths About Nursing

PREPARATION. Ask students to collect nursing myths from friends or family members. For instance, students may have heard that "drinking beer is good for nursing mothers because it increases the amount of milk they can produce."

ACTIVITY. Discuss these myths to discover how they may be true, false, or a bit of both. In this example, the discussion can highlight various points.

- Beer is an alcoholic beverage. Alcohol consumed by a nursing mother finds its way into her milk. In excess, it may harm the baby.
- Beer is a fluid, and increasing fluids in the diet might help milk production. On the other hand, beer does not contain many nutrients: drinking it instead of more nutritious fluids is not a wise choice.
- The alcohol in beer may help relax the nursing mother and make the "let-down reflex" easier.

Several of the references listed on page 87 include discussions of myths about nursing. The Brody book is one; the Farb and Armelagos is another.

If students are interested, each might ask her physician or other health-care professionals for an example of such a nursing myth to share in class.

5. A Research Trek to the Library

PREPARATION and ACTIVITY. Ask students to locate in the public library any books on breast-feeding and to bring these back to share in class. Most of these books will contain a chapter on nutrition. See if any offer ideas for simple in-class food preparation exercises that focus on the nutrients highlighted in this lesson. This activity can be done as a group or an individual assignment.

Related Activities

Related activities appear elsewhere.

- Lesson 5, activities 1 (ACDFolacin card game) and 2 (food preparation: "ACDFolacin Flapjacks").
- Lesson 14, activities 1 (sampling vitamin A- and vitamin C-rich vegetables); 2 (sampling vitamin A- and vitamin C-rich fruits); and 5 (food preparation: "Orange Cooler").
- Lesson 16, activities 1 (exploring calcium content of dairy foods); 2 (nondairy sources of calcium); and 3 (food preparation: "Yo-Cot Parfait").
- Lesson 18, activity 3: comparing the nutrient content of various beverages.

B-right Ideas: Nutrition During Nursing

If you plan to nurse, you need to change your diet. This is so your body can produce enough high quality milk for your infant. Your baby will need two to four cups of your milk each day.

To produce this milk, you will need extra calories, protein, and fluid in your diet. You can easily get these extras by drinking two to three extra cups of whole milk each day. You will need 500 extra calories, 20 extra grams of protein, and extra fluid each day, over and above your daily requirements while pregnant.

To produce the milk your baby will need each day, you will need to add 500 extra calories, 20 extra grams of protein, and extra fluid each day. These amounts are over and above your daily requirements while pregnant.

You also need extra vitamins during the nursing months so your milk will contain plenty of nutrients for your baby. You will need to have more foods with vitamin C, vitamin E, and folacin. A food high in each of these nutrients should be added to your usual daily diet. It's easy to get these nutrients from foods.

Vitamin C

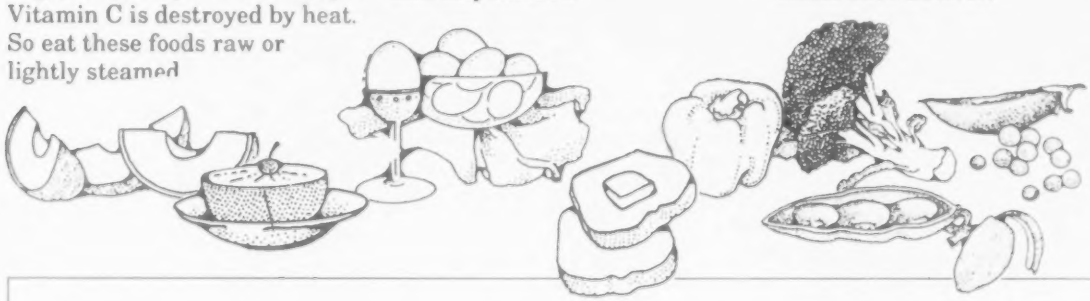
Get this vitamin in citrus fruits and juices like oranges and grapefruit. Other vitamin C-rich foods are strawberries, broccoli, green peppers, cabbage, tomatoes, and cantaloupe. Vitamin C is destroyed by heat. So eat these foods raw or lightly steamed

Vitamin E

This vitamin comes from vegetable oils and margarine, egg yolks, wheat germ, leafy green vegetables, whole grain cereals, whole grain products, and mayonnaise.

Folacin

Foods with this nutrient include leafy green vegetables, broccoli, oranges, whole grains, egg yolks, avocados, legumes (beans and peas), and organ meats such as liver.



About Drugs

Any drug that a nursing mother takes can get into her milk. This means that any drug you take, your baby will take. Never take drugs while nursing unless your doctor prescribes them. Drugs include many different substances.

- over-the-counter medicines
- prescription drugs, including birth control pills
- alcohol
- caffeine from coffee, tea, cola drinks, and chocolate
- nicotine from cigarettes
- street substances including marijuana, cocaine, etc.
- vitamin and mineral supplements

Birth control pills contain hormones that can get in your milk. Also, these hormones can reduce your milk supply. You may want to consider another method of birth control during the nursing months.

The Puzzle Page

Directions: The menus below could be improved for the nursing mother, either by adding a food or subtracting a food. For each menu, suggest a food to add to the menu or to substitute for one of the items to make it more nutritious. Also, tell how much of the food should be served.

Menu I
Suggest an addition to increase fluid.
- bowl of chili
- cole slaw
- ice cream cone
- corn bread
- glass of water

_____

Menu II
Suggest a substitution to increase calories.
- glass of skim milk
- green salad
- banana
- hamburger
- french fries

_____

Menu III
Suggest a substitution to increase protein.
- bread and butter sandwich
- glass of soda
- two candy bars
- potato chips
- apple

_____

Menu IV
Suggest an addition to increase vitamin C.
- hot dog and bun
- carrot sticks
- corn chips
- milk shake

_____

Menu V
Suggest a substitution to increase vitamin E.
- white enriched bread with peanut butter and jelly
- celery sticks
- orange
- glass of skim milk

_____

Menu VI
Suggest a substitution to increase folacin.
- ham steak
- scalloped potatoes
- carrots
- white dinner roll, butter
- glass of skim milk

_____

Menu VII
Suggest an addition to increase protein.
- green salad
- ice cream sundae
- taco
- glass of orange pop

_____

Menu VIII
Suggest an addition to increase calories.
- cheese and pepperoni pizza
- can of diet soft drink

_____

Menu IX
Suggest both an addition and a substitution to increase protein.
- 2 slices of whole wheat toast with butter
- glass of orange juice
- coffee

_____

Lesson 13

Introducing Solid Foods to the Baby's Diet

This lesson should be used *only* if the mother is planning to keep her infant.

Focus

Introducing solid food to a baby's diet should be delayed until at least four months of age. Earlier introduction of solids can cause health problems for the infant. Both home-prepared and commercially produced baby foods can be nutritionally sound, but costs and availability can vary.

Objectives

The student will be able to

1. identify four months as the earliest age for introducing solid food into an infant's diet.
2. recognize that sugar and salt are unnecessary additives to any baby food.
3. list two advantages each of home-prepared and commercially prepared baby foods.
4. understand that iron-fortified baby cereal is a good source of iron for the infant.
5. realize that, after introducing solid foods to the baby's diet, vitamin or mineral supplements should continue to be used only upon a physician's advice.

Teacher's Notes

Until about four to six months or age, a baby's only source of nutrition should be breast milk or formula. Prematurely introducing solid foods to a young baby's diet can lead to health problems such as food allergies or obesity if too many total calories are consumed. Also, if solid foods are offered too early, the infant may not consume sufficient breast milk or formula for his or her nutritional needs.

Solid foods should be introduced in a nutritionally sound order.

- Iron-fortified rice, barley, or oat cereals can be offered at about four to six months. Wheat cereals should not be offered: they can cause allergic reactions.
- Fruits, juices, and cooked vegetables can be offered at about five to eight months.
- Meat can be offered at about eight months.
- Egg yolk can be offered at about ten months.
- Egg white can be offered at about 12 months.

Solid foods should be fed to the baby with a spoon, never in a bottle or force-feeder. Either home-prepared or commercially prepared baby foods can be nutritionally adequate. However, neither sugar nor salt should be added: they are unnecessary for the baby's nutrition. Honey should never be used for any infant under a year old. It may be contaminated with spores of *Clostridium botulinum* which the infant's digestive system cannot destroy. These spores can cause botulism, which is potentially fatal.

Vitamin and mineral supplements should never be given to an infant unless under the advice of a physician, nurse, or dietitian. Some other tips may be helpful to your students.

- Contrary to a popular belief, starting solids before four months does not help a baby sleep through the night.
- Some physicians recommend starting vegetables before fruits; others prefer the other way around.

- It is best to introduce one new solid food every three to four days. The mother should not combine food items: she should offer only single foods. This lets her note if the baby has a negative reaction to the food. It also lets her determine which food was at fault.
- If the baby doesn't like a new food, it should not be forced on him or her. The mother should wait a few weeks and try it again.
- Home-prepared foods are usually cheaper than commercially prepared ones. Commercially prepared foods can be more convenient if mother and baby must be away from home.
- Lead levels in canned (tinned) foods may be very high and dangerous for the baby. Therefore canned foods are not suitable for use in home-prepared infant foods.

Information Handout and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over the handouts with the class or with individual students to emphasize particular points or to answer any questions. Encourage students to seek the help of others in the family or living group for any handouts they complete as take-home assignments.

References

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Suggested Activities

1. Time for Solids

PREPARATION. Collect examples or pictures of foods appropriate for babies such as cereals, vegetables, fruits or juices, meat , eggs, desserts. Prepare a display for students to examine.

ACTIVITY. Have students review the "B-right Ideas" information handout. Write the words "cereal," "vegetables," "fruits/juices," "meat," "egg yolk," and "desserts" in random order on the board. When the students have completed their review, ask them to write down the order in which these foods should be introduced to an infant.

Then ask students to write down how soon it is recommended for babies to begin eating solid foods. Be sure to present the proper order and times for introducing new foods. A class discussion will permit you to clear up any misunderstandings. One way to emphsize that desserts are unnecessary is to cross that category out.

If the food display includes packaged desserts, have students check the labels for nutrient content. Remind them that the first-listed ingredient is present in the greatest weight.

2. Unnecessary and/or Dangerous Foods

PREPARATION. Collect samples of sugar, salt, and honey. Display them in packages, in containers, or as pictures.

ACTIVITY. Display a labeled sample of each foodstuff and ask the students to tell what all three have in common with respect to infant nutrition. When they indicate that all are unnecessary for infants, ask them to identify the product that is potentially very dangerous to a baby of less than a year old and explain why this is so.

Be sure to highlight honey's danger for young infants because of its potential for containing spores of the bacterium that causes botulism. Emphasize that, while sugar and salt are unnecessary additives to home-prepared baby foods, honey should never be added to home-prepared or commercially prepared baby foods.

An extension of this activity could involve several student volunteers in a research project. Have them check various baby food tables during their next supermarket trip. Ask them to record how many and what kinds of baby foods contain salt and sugar. They can share this information with the class.

3. The Homemade Way

PREPARATION. Arrange a visit from a WIC nutritionist, public health nurse, or a hospital dietitian to present a demonstration of preparing baby foods at home. Suggest that he or she demonstrate the use of a sieve, blender, and baby food mill with several different foods.

ACTIVITY. To prepare for the visit, students can list advantages of homemade and commercial baby foods. Some ideas appear below. Others may be found in the pamphlets listed in the "References" portion of this lesson. Students' ideas can be summarized in the form of a display poster and/or copied into their journals or notebooks for future reference.

- **Cost.** Homemade foods are generally cheaper. Commercial foods may be more convenient, but are usually more expensive.
- **Ingredients.** The addition of salt, sugar, and spices can be controlled if the foods are prepared at home.
- **Storage.** Commercial baby foods need no special storage facilities for unopened containers. Homemade foods will probably need refrigeration or freezing.

It should be emphasized that canned (tinned) foods—especially liquids or acidic fruits and vegetables—should never be used to make baby foods at home. These foods may contain dangerously high levels of lead.

4. Homemade Baby Food Recipes

PREPARATION and ACTIVITY. Ask each student to secure and bring to class

- a book about homemade baby foods (found in the school or pubic library or at home), or
- a suggestion for a homemade baby food recipe, or
- a pamphlet about homemade baby foods (from a support agency such as WIC, local extension offices, or a public health nurse).

Encourage students to seek help from someone at home in finding this information.

In class, select favorite recipes and review them for nutritional value. If school facilities permit, prepare a simple recipe. Students can prepare a small booklet of recipes for later use or can copy into their journals or notebooks recipes they read or tried.

B-right Ideas: Introducing Solid Foods to the Baby's Diet

Until your baby is four to six months old, breast milk or formula can meet nearly all of his or her nutritional needs. When he or she is four to six months old, you can begin offering solid foods.

What to Feed the Baby

The best "first food" for babies is an iron-fortified cereal. Do not use wheat cereal, which can cause allergic reactions. Instead, use cereals made of rice, oatmeal, or barley. Begin offering these foods when the baby is four to six months old.

Your baby can try eating vegtables, fruits, or fruit juices at five to seven months of age. Later, at seven to nine months, you can offer him or her meat. Egg yolk can be offered at ten months and egg white at a year or more.

Commercial baby foods and homemade baby foods can both be nutritious. Each type has advantages and disadvantages. Storage requirements are different for each type.

How to Feed the Baby

Offer your baby solid food on a spoon. Never use a bottle or a force-feeding device. Allow about four days between each new food, in case one food makes the baby sick: then you'll know which one it was.

For instance, if you want your seven-month-old baby to try cooked green beans, carrots, and peas, try only one food at a time. Don't try another food for four more days. If one of the foods disagrees with the baby, you'll know which one was responsible.

If the baby doesn't like a new food, wait a few weeks to try it again.

What NOT to Feed the Baby

Your baby doesn't need sugar or salt, so never add these to food you buy or prepare. Most commercially prepared baby foods contain little or no salt. Some commercially prepared baby foods contain sugar. Read the labels carefully when you shop.

Never add honey to store-bought or homemade baby foods. Honey is very dangerous for babies under a year of age. Honey can sometimes contain spores of a bacterium that causes botulism. The baby's digestive system is not strong enough yet to destroy these spores. This illness is serious and can be fatal.

Never use canned food (food in tins) to prepare homemade baby food. These foods may contain dangerous amounts of lead. Especially dangerous are canned liquids and acid fruits and vegetables (such as tomato juice or soup and mandarin oranges).

Making the Transition

Breast milk or formula will be a major part of your baby's diet even after he or she starts on solid foods. Don't feed your baby so much solid food that he or she can't consume enough breast milk or formula. Your doctor will tell you how much breast milk or formula you should continue to feed your baby. Your doctor or nutritionist may want your baby to continue vitamin or mineral supplements, even after starting to eat solid food.

The Puzzle Page

Directions: This is a two-part puzzle. First, fill in the blanks in sentences 1-10. The sentences are about how and when to introduce solids to your baby's diet. Then, look at the letter under each blank. If the letter is A, the word in that blank goes in one of the two blanks in item A on the top part. The hints in the top part are crazy combinations of two words. Look at the example in item A to get started.

A. 3 + 1 juicy things to eat	F O U R F R U I T S
B. A super-hot metal	W _ _ _ _ I _ _ _
C. A less expensive seasoning	C _ _ _ _ _ _ S _ _ _
D. A grain container	W _ _ _ _ B _ _ _ _ _
E. Sweet non-liquids	S _ _ _ _ S _ _ _ _ _
F. Chicken's obstetrician	E _ _ D _ _ _ _ _
G. Bee infant	H _ _ _ _ B _ _ _

1. The earliest time to introduce solids into your baby's diet is F O U R (A) to six months.
2. _ _ _ _ (B)-fortified baby cereal is a good first food for your baby.
3. _ _ _ _ _ (D) and _ _ _ (F) _ _ _ _ _ (B) may cause allergies in babies less than one year old.
4. Homemade baby food is usually _ _ _ _ _ _ _ (C) than commercially-prepared baby food.
5. _ _ _ _ _ (G) should never be fed to a young infant; bacteria in it could cause botulism.
6. Neither _ _ _ _ (C) nor _ _ _ _ _ (E) are necessary in any baby food.
7. F R U I T S (A) or vegetables may be introduced to your baby at about five months.
8. _ _ _ _ _ _ (E) should always be offered on a spoon, never in a _ _ _ _ _ _ (D) or a device which forces the baby to eat.
9. Check with the _ _ _ _ _ _ (F) about use of vitamin/mineral supplements after you begin to add solids to your baby's diet.
10. Both commercial and home-prepared _ _ _ _ (G) food can be nutritionally adequate for your baby.

Basic Food Groups: Nutrition for all Teenagers

Lesson 14: Fruits and Vegetables
Lesson 15: Grain Foods
Lesson 16: Dairy Foods
Lesson 17: Protein Foods
Lesson 18: Fats, Sweets, and Alcohol

Lesson 14

Fruits and Vegetables

Focus

The fruit and vegetable group is the main source of vitamins A and C and is a good source of fiber. Some of these foods are good sources of calcium as well. Fruits and vegetables are available in a wide selection of forms: fresh, frozen, liquid, canned, and dried.

Objectives

The student will be able to

1. identify this group as a primary source of vitamins A, C, riboflavin, and folacin and of the minerals iron, magnesium, and calcium.
2. recognize that these foods are a good source of fiber.
3. describe three appropriate serving sizes for three different foods in this group.
4. state that all teenagers need at least four servings daily from this group, one of which should be rich in vitamin C.
5. identify three vitamin C foods and three vitamin A foods from this group.

Teacher's Notes

Vegetables and fruits contribute vitamins A and C, fiber, and minerals to the diet. Dark green and deep yellow vegetables are good sources of vitamin A. Most dark green vegetables—when not overcooked—are reliable sources of vitamin C. Melons, berries, tomatoes, and citrus fruits (such as oranges, grapefruits, tangerines, and lemons) also are vitamin C-rich foods. Peels and edible seeds are rich in fiber.

Dark green vegetables are valued for their riboflavin, folacin, iron, and magnesium. Some greens, including collards, kale, turnip greens, mustard greens, and dandelion, provide calcium. Nearly all vegetables and fruits are low in fat, although avocado is one exception. None contain cholesterol.

—adapted from *The Hassle-Free Guide to Better Diet*, USDA

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Be sure to read the handouts with the class or with individual students to emphasize particular points or to answer questions. Encourage students to seek the help of others in the class, if appropriate, or in the family and living group for handouts they complete as take-home assignments. "The Puzzle Page" can be done as a class project from an overhead transparency.

References

Davis, Carole A., and others. *Food*. Home and Garden Bulletin No. 228. U. S. Department of Agriculture. Washington, DC: U. S. Government Printing Office, 1979.

Katt, Sally, ed. *"What's to Eat?" and Other Questions Kids Ask About Food*. Yearbook of Agriculture, 1979. Washington, DC: U. S. Government Printing Office, 1979.

Mahan, L. Kathleen, and Jane Mitchell Rees. *Nutrition in Adolescence*. St. Louis, MO: Times Mirror/Mosby College Publishing, 1984.

Suggested Activities

1. Rate the Veggies

MATERIALS NEEDED. Four pieces of paper and a pen per student; serving supplies, such as toothpicks and small plates or pieces of foil; an assortment of vitamin A- and vitamin C-rich vegetables; knives.

Suggested vegetables—Vitamin A-rich: carrots, sweet potatoes, spinach, winter squash, pumpkin. Vitamin C-rich: cabbage, potatoes, tomatoes, broccoli, green peppers.

PREPARATION. Cut vegetables into bite-sized pieces. Leave as many as possible raw; some—such as sweet potatoes, squash, pumpkin, and potatoes—benefit from cooking, and should be gently steamed and cooled. If preparation facilities are not available, prepare the vegetables beforehand, but keep them well-cooled or refrigerated until use.

ACTIVITY. Pass out serving supplies, the slips of paper, and a pen to each student. Ask them to number the slips with large numerals from 1 to 4. Explain that they will use these cards to rate the samples of vegetables. Write the following key on the board:

1 = Yuck.
2 = Not one of my favorites.
3 = Not bad. It'll do.
4 = I really like this.

Next, pass out the vegetables, one type at a time. After all students have tasted a particular vegetable, ask them to hold up a card rating it. Ask students to suggest different ways the vegetable might be included in the diet. Would the low scorers like the vegetable better if it were prepared differently? How? Then pick one student, and ask her to identify whether the vegetable just tasted contains vitamin A, vitamin C, or both.

Encourage each student to try all the samples, but do not insist if someone is resistant to trying one or more. Stress that pregnant teenagers need five servings per day of fruits and vegetables, while all teenagers need four. Pregnant teenagers should have two servings daily of a vitamin-C rich food; all teenagers should have one daily. A vitamin A-rich food should be eaten several times per week.

2. The Fruit Connection

PREPARATION and ACTIVITY. Repeat activity 1 with fruits instead of vegetables. Vitamin A-rich fruits include apricots, peaches, and cantaloupe. Vitamin C-rich fruits include oranges, grapefruits, lemons, strawberries, tomatoes, tangerines, and cantaloupes.

3. Get Your Fiber Here!

PREPARATION. Clip pictures from magazines or secure fresh samples of high fiber foods to display or to taste. Suggestions include apples, carrots, celery, corn, grapefruit, grapes, green beans, lettuce, lima beans, peas, plums, potatoes with skins, prunes, raisins, and tomatoes.

ACTIVITY. Ask students what the foods have in common (high fiber and low caloric content). Explain that dietary fiber is the hard, woody substance in plants that helps eliminate food residues from the body and helps prevent constipation. Fiber is composed mainly of indigestible carbohydrate.

4. Calcium Without the Moo

This activity would be especially appropriate in a class with students whose diets depend exclusively on milk products for calcium or who are lactose intolerant.

PREPARATION. Secure pictures or samples of collards, mustard greens, kale, broccoli, dandelion greens, and turnip greens.

ACTIVITY. Ask students to bring to class recipes using these products that their families or living groups eat. Give them the opportunity to add tempting recipes to their journals or notebooks. Stress that these greens are an excellent source of calcium. They can refer to their Mini Food Composition Tables to compare calcium content of these and other foods. Suggest that greens are best if not overcooked and should never be cooked with baking soda. The pot liquor from steaming or light boiling is nutritious and can be used in soups, stews, and mixed with other juices, such as tomato juice.

5. Orange Cooler

PREPARATION and ACTIVITY. Prepare this recipe in class. (See page 105.) Duplicate and distribute the recipe so the students may add it to their journals or notebooks. This drink is a good source of vitamin C and calcium.

6. A Recipe Exchange

PREPARATION and ACTIVITY. Ask students to bring simple recipes from home that use either a vitamin A-rich or a vitamin C-rich food. Share these in class and assemble a collection of recipes for later use.

B-right Ideas: Fruits and Vegetables

Include:

- all fruits
- all vegetables

Provide:

- vitamin A
- vitamin C
- fiber
- minerals

A pregnant teenager needs five servings (about 2-1/2 cups) of fruits and vegetables each day. All teenagers need four servings daily.

Different fruits and vegetables provide different amounts of vitamins A and C, fiber, and folacin. You should eat a variety of these foods to get a good balance of nutrients.

Vitamin A

This vitamin is found in dark green and dark yellow vegetables and in some fruits.

- broccoli
- carrots, sweet potatoes, yellow squashes (such as acorn, butternut, and Hubbard)
- dark leafy greens: spinach, collard greens, dandelion greens, turnip greens
- apricots
- peaches
- canteloupes

This vitamin keeps your skin healthy and helps maintain your internal organs. You should eat vitamin A-rich foods several times each week.

Vitamin C

Get vitamin C in

- citrus fruits (oranges, lemons, grapefruits, and tangerines), melons, and berries;
- broccoli;
- sweet, mild, and hot peppers; and
- tomatoes.

This vitamin keeps your muscles, skin, and internal organs healthy. It also helps your body absorb the minerals in the foods you eat. You should eat one vitamin C-rich food every day.

Fiber for You

These foods are good sources of nutrition for pregnant and nonpregnant teenagers alike. They are high in fiber, a nutrient everyone needs. High-fiber foods help relieve constipation, which is often a problem in pregnancy. Much of the fiber is in the peel, so eat these foods unpeeled if you can. Fruits with edible seeds, such as strawberries, blackberries, and raspberries, are also high in fiber.

Serving Sizes:

One serving from this group is about one-half cup. This is approximately equal to

- one orange, or
- the juice of one lemon, or
- half a medium grapefruit or cantaloupe, or
- a wedge of lettuce or bowl of salad, or
- one medium potato.

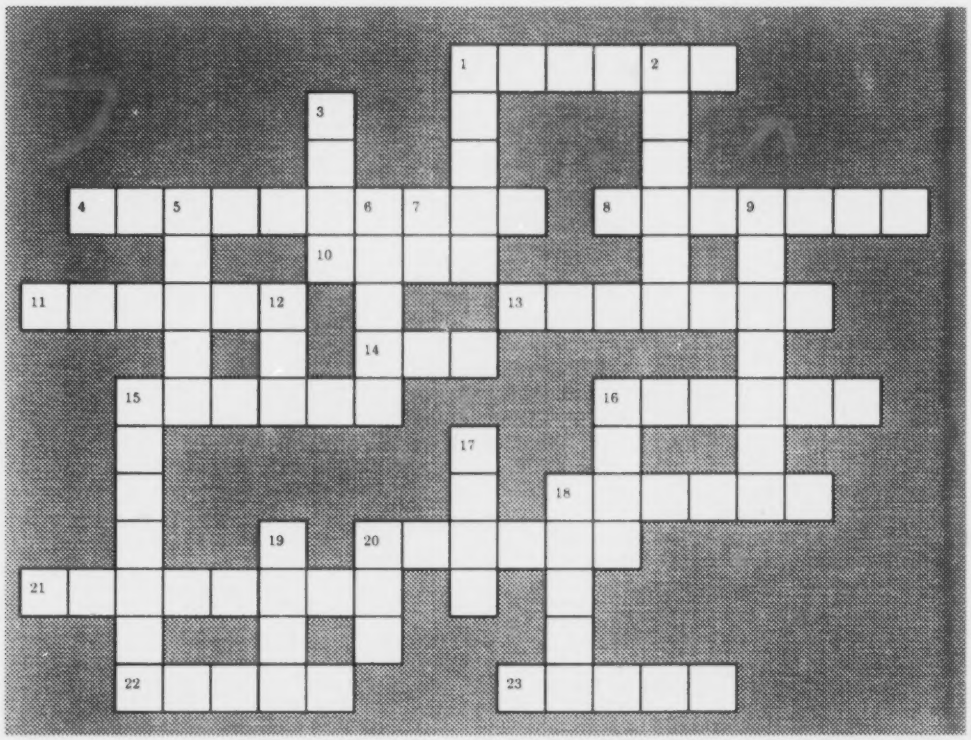
Minerals and Other Nutrients

Some vegetables are rich in minerals. Dark green vegetables provide iron and magnesium, and certain greens provide calcium.

Dark green vegetables also provide different amounts of riboflavin and folicin, B-vitamins that keep all teens healthy.

Worksheet

The Puzzle Page



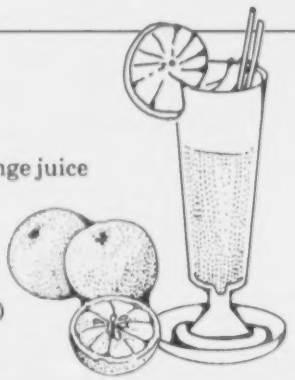
Across

1. _____ and vegetables
4. Broccoli, cabbage and green peppers are vitamin C-rich _____.
8. Turnip greens supply _____.
10. Not high in A or C, but a juicy fruit.
11. I wear a brown coat and am high in vitamin C.
13. After digesting food, the body _____ it.
14. The best way to eat many fruits and vegetables.
15. Skinny and green and full of fiber.
16. Monkey food (and people food).
18. _____ fruits and vegetables have more vitamin C than canned.
20. Plums in their old age.
21. Super A and C food.
22. What you don't remove from apples
23. _____ pepper is a versatile veggie.

Down

1. A "regular" part of your diet.
2. Both a fruit and a vegetable.
3. Something to catch a bear.
5. A raisin in infancy.
6. A seedy character.
7. Apple pie, a _____ mode.
9. In cole slaw, a super source of vitamin C.
12. The number of servings of C-rich foods a non-pregnant teen needs each day.
15. High A vegetable.
16. Where many veggies are found: salad _____.
17. Teens need _____ servings of fruits and vegetables each day.
18. Apples have _____ seeds than strawberries.
19. Ear! Ear!
20. A neat treat: pumpkin _____.

Orange Cooler



Equipment needed:
blender
measuring cup and spoons
spatula
paper cups

Ingredients:
6-ounce can frozen orange juice concentrate
1 cup whole milk
1 cup water
1/2 teaspoon vanilla
1/4 cup sugar (optional)
10 ice cubes, crushed

Instructions: Place all ingredients in a blender. Cover and blend until smooth. Serve immediately.

Yield: 6 servings, about 3/4 cup each.
115 calories per serving
(made with milk).

Suggestions: Substitute 1 cup of vanilla ice cream for the whole milk and sugar for a thicker, more dessert-like drink. The calorie count will remain about the same but the fat content increases.

Lesson 15

Grain Foods

Focus

Grain foods are an important source of B vitamins and minerals (iron and magnesium) and a good source of fiber. This group contains whole grain and enriched products only. Unenriched processed grain products contain little nutrition.

Objectives

The student will be able to

1. identify this group as a major source of B vitamins, iron, carbohydrate, and protein.
2. list serving sizes for three different foods in this group.
3. recognize that all teenagers need at least four servings a day from this group.
4. differentiate between "whole grain" and "enriched."
5. evaluate the relative sugar content of breakfast cereals, given a list of ingredients.

Teacher's Notes

Whole grain and enriched breads and cereals are important sources of B vitamins, iron, and protein. They are a major source of protein in vegetarian diets. Whole grain products contribute magnesium, folacin, and fiber. Foods in the bread and cereal group include all products made with whole grains or enriched flour or meal.

Buying unsweetened cereals lets the consumer control the amount of sugar added; a few presweetened cereals contain more than 50 percent sugar. The sugar content of some ready-to-eat cereals is listed on the label.

—from *The Hassle-Free Guide to a Better Diet* and *Food* USDA.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over each with the class or individual students to emphasize particular points or to answer questions. Encourage students to seek the help of others in the family or living group for any handouts they complete as take-home assignments.

"The Puzzle Page" for this lesson can be completed as a group assignment. It would involve taking the entire class to a grocery store or supermarket, if this can be arranged with the store manager. The manager can suggest the least busy time to make the visit, to ensure the visit is not disruptive for store personnel and is as convenient as possible for everyone.

Students can pair up or form small workgroups to investigate the store's products and fill out the worksheet. Everyone can share findings in class.

References

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Katt, Sally, ed. *"What's to Eat?" and Other Questions Kids Ask About Food*. Yearbook of Agriculture, 1979. Washington, DC: U. S. Government Printing Office, 1979.

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Tannahill, Reay. *Food in History*. New York: Stein and Day Publishers, 1973.

Suggested Activities

1. A Tasting Experience—Breads

PREPARATION. The objective of this exercise is to broaden students' experience of the different types of breads available. Contact a local restaurant, delicatessen, or bakery that serves a variety of breads. Obtain samples of several kinds. Get wrappers, if possible, so the class can investigate ingredients and other label information.

Include the old standby white enriched bread in your samples as well as whole grain and "unfamiliar" grain products such as whole or refined rye, whole wheat, bran, corn, pumpernickel, oatmeal, enriched sourdough, any "house specialties," and similar baked goods such as whole wheat or white enriched bagels.

ACTIVITY. Serve the breads in small sampling portions. Have students rate the breads as to taste, texture (fine, coarse), smell, appearance, and whether they like about them. Explain that all the breads are in the grain group. Pregnant teenagers need at least five servings per day from this group. All teenagers need at least four. Suggest that students encourage others in their household to try the new products they liked best.

2. Brown Bread, White Bread

PREPARATION. Prepare a display of a loaf of enriched white bread and a good quality whole wheat bread. Include the wrappers in the display.

ACTIVITY. Ask students to identify the differences between the two products by reading the list of ingredients and by examining the products by touch, taste, sight, and smell.

While both products are good sources of carbohydrates, vitamins, and protein, the whole wheat product also provides the mineral magnesium, the B-vitamin folacin, and fiber. Both breads contain iron.

Unenriched white flour products have only a portion of the nutrients of whole wheat flour products; in the milling process, some niacin, thiamin, riboflavin, and iron are lost. Products that are enriched have vitamins added that naturally occur in the whole grain. However, some nutrients are not replaced, such as fiber. Ask students to express a preference and to evaluate it in nutritional terms.

3. Bread and Cereal Diary

PREPARATION and ACTIVITY. Ask students to record in their journals or notebooks all the grain and cereal products they consume in a particular day. They can share the information in class and suggest to each other possible improvements in intakes of these foods. If students are not comfortable with this evaluation, it could be done privately between teacher and student.

4. Rank the Cereals

PREPARATION. Collect a variety of empty breakfast cereal boxes and ask students to supplement it by bringing some in from home.

ACTIVITY. Have students read the nutritional information and identify which ingredient is present in the highest amount for each product. Remind them, if necessary, that this will always be the first listed ingredient. Then ask them how many calories a serving of each product contains, both with and without milk. If the nutrition information also contains information on carbohydrate content, have them identify how much sugar and how much dietary fiber each product contains. There are many different names for sugar, such as honey, corn syrup, fructose, and brown sugar. These ingredients will appear on the label.

Ask students to rank the cereals from most to least nutritious and explain how they arrived at this ranking in terms of nutrients, ingredients, and so forth.

5. Food/Nation Flash Cards

PREPARATION. Make a deck of flash cards with the name of a country on one side and the name of a bread or cereal product associated with the country on the other. If you prepare the deck with students' help, ask them to provide suggestions. Some examples follow.

- Germany—rye bread
- Mexico—corn tortillas
- Japan, Laos, China, Vietnam—rice
- China—noodles or rice
- Scotland—oats
- USA—corn bread, grits
- Italy—pasta

A good reference for these foods is Reay Tannahill's book, listed above.

ACTIVITY. Have students quiz each other to become familiar with the variety of grain and cereal products found throughout the world. An extension of this activity could be to make a class trip to the school or public library to seek grain and cereal recipes in cookbooks and then make a simple recipe in class.

6. Yummy Granola

PREPARATION and ACTIVITY. Prepare "Basic Granola and Fruit" as a class activity or before class, if facilities are not available. The recipe appears on page 111. Encourage students to share the recipe at home. This granola makes an excellent, nutritious snack with milk and can be eaten dry instead of candy to satisfy the "sweet tooth" students often have.

7. Vegetable Rice Stirfry

PREPARATION and ACTIVITY. Prepare the stirfry recipe on page 111. Ask students to suggest substitutions in the recipe: various herbs and spices for the garlic powder, salt, and pepper; different combinations of vegetables for the frozen ones (fresh greens provide calcium, folacin, and vitamins A and C); or brown rice or Basmati rice for the white rice. Additions can include cooked chicken, beef, or pork.

B-right Ideas: Grain Foods

Include:

- bread, muffins, pancakes, biscuits, and waffles
- macaroni, noodles, and spaghetti
- cornmeal, rice, rolled oats, grits, bulghur, rye, barley and other grains
- cooked and ready-to-eat cereals

Provide:

- carbohydrates for energy
- protein
- B vitamins including folacin
- fiber
- minerals including magnesium and iron

All teenagers need four servings of grain foods daily. Pregnant teens should have five servings each day.

This food group includes many delicious foods made with whole grains or enriched flour or meal. These foods provide many different nutrients. Vegetarian diets use breads and cereal foods for protein in combination with beans and legumes.

Whole Grain Foods

Include whole grain products in your diet each day. These products have more nutrients than refined ones do. When grains are refined, parts of the grain are removed. These parts have nutrients in them.

Some grain products are enriched. This means that some of the lost nutrients are added back. Whole grain products have these nutrients naturally. Whole grain products are high in fiber, much of which is lost in refining.

Some enriched products, such as breakfast cereals, are highly fortified. This means that the amount of nutrients added is higher than the levels that exist naturally in whole grains. These products also may lack essential fiber, magnesium, and folacin.

Serving Sizes

One serving from this group is
- one slice of bread, or
- one-half to three-fourths of a cup of cooked cereal, cornmeal, grits, macaroni, noodles, rice, or spaghetti, or
- one ounce of ready-to-eat cereal.

Read the Labels

Breakfast cereals also often contain other added substances. Always check the list of ingredients. It is best to buy unsweetened cereals and add just enough sugar, if any. Remember: the ingredient listed first is present in the largest amount.

There is a myth that bread and cereal foods are fattening. By themselves they aren't. What is really fattening is the butter added to the bread, the sauce on the spaghetti, or the sugar on the breakfast cereal.

The Puzzle Page

Directions: Take this sheet with you the next time you go to the grocery store. Try to find the products described. All of them belong to the bread or cereal group. There is more than one right answer for each question. Please include brand names where possible.

1. A bread that contains NO whole wheat flour ..... _____
2. A white bread product that contains **no** enriched flour ..... _____
   This would **not** be included in the Bread and Cereal Group.)
3. Another name for thin spaghetti ..... _____
4. A frozen bread product ..... _____
5. A packaged, combination dish product that contains enriched rice _____
6. A packaged, combination dish product that contains enriched noodles _____
7. A cereal that is **not** ready-to-eat ..... _____
8. A ready-to-eat cereal that does not contain sugar ..... _____
9. A ready-to-eat cereal that contains sugar as the first ingredient .. _____
10. Two "instant-cooking" cereals ..... _____

    ..... _____
11. Grits come from this grain product ..... _____
12. A ready-to-eat cereal that offers a prize in the box ..... _____
13. The least expensive brand of enriched white flour ..... _____
14. A canned product that contain enriched noodles or spaghetti ..... _____
15. A frozen product that contains enriched noodles or spaghetti ..... _____
16. Any cracker, other than saltines, that contains enriched flour .... _____
17. Ready-to-eat oat cereal shaped like little "Os" ..... _____

Basic Granola and Fruit

Equipment needed:
oven
large bowl
mixing spoon
sauce pan
shallow baking pan
or cookie sheet
plastic bag or glass container
measuring cup(s)
knife

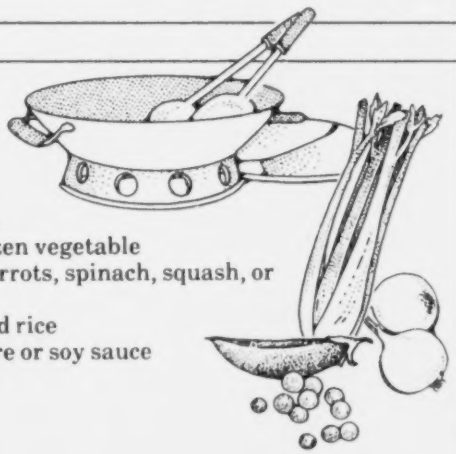
Ingredients:
5 cups rolled oats
1/4 cup honey
1/4 cup vegetable oil
about 1/2 cup chopped dried fruits such as
dates or raisins, apples or peaches

Instructions:
Place the oats in a large bowl. Heat the honey and vegetable oil in a saucepan until well mixed and fluid. Pour the honey/oil over the oats and stir to mix.

Spread the mixture in an oiled shallow baking pan or cookie sheet. Place into a preheated 250°F oven. Bake about 40 minutes until lightly browned. Alternatively, bake at 350°F for 20 minutes, if time is short. Stir every 10 minutes to prevent burning and to produce even browning. Cool completely after removing from oven.

Mix in dried fruit and store in an airtight bag to preserve freshness. Best if stored in refrigerator.

Vegetable Rice Stir Fry



Equipment needed:
stove
deep pan or wok
cooking spoon
knife
measuring cup(s)

Ingredients:
2 tsp. oil
1/2 cup sliced celery
1/4 cup chopped onion
10-ounce package frozen vegetable
(peas, peas and carrots, spinach, squash, or blend of several)
2 cups cooked unsalted rice
2 Tbsp. Worcestershire or soy sauce
1/4 tsp. garlic powder
1/4 tsp. salt
pepper to taste

Instructions:
Heat oil over medium heat until sizzling hot. Add celery and onions. Stir fry by continuously stirring the vegetables for 2 minutes. Add frozen vegetables and stir fry for about 4 minutes, until crisp tender. Add rice and stir. Sprinkle with the worcestershire or soy sauce, garlic powder, salt, and pepper. Cook for about 2 minutes more. This recipe makes about 4-6 servings.

Suggestions:
Vary the recipe by adding 1/2 cup cubed cooked tofu, chicken, beef, or pork with the rice. Use brown or Basmati rice to increase the fiber content. Other combinations of herbs and spices or of vegetables will yield a delicious stir fry.

Lesson 16

Dairy Foods

Focus

These foods are rich in protein and vitamin A, the B-complex vitamins, and sometimes vitamin D. Dairy foods are an important source of calcium in many U.S. diets. However, calcium is supplied by nondairy food sources as well.

Objectives

The student will be able to

1. identify this group as a good source of protein, riboflavin, calcium, and vitamin D (if fortified).
2. list serving sizes for three different foods in this group.
3. recognize that teenagers need at least four servings from this group daily.

Teacher's Notes

This group includes whole, skim, lowfat, evaporated, and nonfat dry milk, buttermilk, yogurt, ice cream, ice milk, and natural and processed cheeses and cheese foods. Dairy products contribute riboflavin, protein, calcium, and vitamins A, B_6, and B_{12}.

Individuals who are lactose intolerant will be able to get sufficient calcium from dark green vegetables, such as collards, kale, mustard greens, turnip greens, dandelion greens, spinach, and broccoli. (See Lesson 14.)

—from *The Hassle-Free Guide to a Better Diet*, USDA

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over the handouts with the class or with individual students to emphasize points or answer questions.

"The Puzzle Page" can be used as a class exercise. Students can share their favorite and least-liked dairy foods, serving ideas, and questions about dairy foods they've never tasted. In a follow-up activity, bring in samples of unfamiliar dairy products for students to taste.

References

Davis, Carole A., and others. *Food*. Home and Garden Bulletin No. 228. U. S. Department of Agriculture, Washington, DC: U. S. Government Printing Office, 1979.

Katt, Sally, ed. *"What's to Eat?" and Other Questions Kids Ask About Food*. Yearbook of Agriculture, 1979. Washington, DC: U. S. Government Printing Office, 1979.

Mahan, L. Kathleen, and Jane Mitchell Rees. *Nutrition in Adolescence*. St. Louis, MO: Times Mirror/Mosby College Publishing, 1984.

Suggested Activities

1. Dairy Foods

PREPARATION. Ask students to refer to their copies of the "Mini Food Composition Table" in their journals or notebooks and to go through the table and identify all of the

dairy foods listed there. Then ask each student to bring to class one or two empty containers from these foods. Collect the containers and prepare a display of them. Information on the containers' labels and on the "B-right Ideas" sheet for this lesson provide additional background materials for this activity.

ACTIVITY. Have students make a list of the serving sizes of each food and the calories, milligrams of calcium, and grams of protein per serving. Then ask them to identify which products are especially high or low in calories, calcium, and protein per serving. Have them suggest various combinations of products that would meet the teenager's daily requirement of four servings per day of these foods. Their choices should reflect a good balance of calories and nutrients and the students' preferences.

2. But I Can't Drink Milk!

PREPARATION and ACTIVITY. This activity is based on the information on nonmilk sources of calcium in Lesson 3 as well as the information in this lesson. Have students suggest ways of getting the 1200 milligrams of calcium per day all teenagers need. Ask them to think of combinations of dairy foods other than milk, combinations of greens, and combinations of dairy foods and greens.

3. A Perfect Parfait

PREPARATION and ACTIVITY. Prepare "Yo-Cot Parfait" on page 116 as an in-class activity. This recipe uses either yogurt or cottage cheese and is a good source of calcium. Students can try the recipe with both or either dairy products. Duplicate the recipe and distribute it to the students for inclusion in their journals or notebooks; encourage them to prepare the treat for those at home.

B-right Ideas: Dairy Foods

Include:

- whole, skim, lowfat, evaporated, and nonfat dry milk and buttermilk
- ice cream and ice milk
- cheeses and cottage cheese
- yogurt

Provide:

- calcium
- protein
- B-vitamins riboflavin, B6 and B12
- vitamin A
- vitamin D, if fortified

All teens—pregnant or not—should have four servings of calcium-rich foods every day.

This food group includes milk in all forms except butter

Calcium Content

Teenagers and pregnant women need more calcium than other people. All teens and pregnant women should have 1,200 milligrams per day of calcium. This amounts to four servings of calcium-rich foods each day.

The box at the right lists serving sizes of different dairy foods.

Calories and Fat

Whole milk products contain more calories than lowfat or skim products. These extra calories come from the fat in whole milk. Skim and lowfat milks have had part of this fat removed. But the calcium and vitamin content are about the same for these different milks.

To lower your intake of fat, balance your consumption of whole and skim milk products.

Cooking with Milk

There are many ways to enjoy dairy products. Milk can be used in a variety of cooked foods, including creamed soups, sauces, puddings, and other dishes. Explore a cookbook for ideas.

Lactose Intolerance

Not everyone can tolerate milk or milk foods. They can get the calcium they need from other sources, including dark green vegetables such as collards, kale, mustard, turnip greens, dandelion greens, spinach, and broccoli. Canned fish eaten with the bones is also rich in calcium: sardines, salmon, and kippers.

Serving Sizes:

Each of these servings provides about 300 milligrams of calcium.

- one eight-once cup of milk, or
- one cup of plain yogurt, or
- one and one-third ounces of natural or processed cheese, or
- two ounces of processed cheese food, or
- one and one-half cups of ice cream or ice milk, or
- two cups of cottage cheese

The protein, fat, and calorie content of these single servings varies.

The Puzzle Page

Directions: Below is a list of milks and milk products. Think of ways you could use each in your diet. List your ideas in the "Serving Ideas" column. Then, in the last column, rate each of the products in the first column using this system:

- Mark a + if you have tasted the product and like it.
- Mark a – if you have tasted the product and don't like it.
- Mark a ? if you never tasted the product.

Try adding up the number of each kind of mark you made. Would you like to try some of the products you never tried? Would you like to reconsider any of those you don't like?

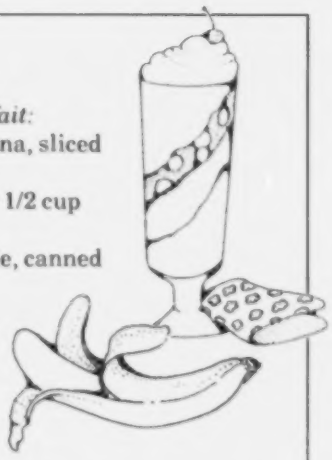
Product	Serving Ideas	My Rating
1. Whole milk		
2. Skim milk		
3. Low-fat milk		
4. Evaporated milk		
5. Buttermilk		
6. Non-fat dry milk with water added		
7. Plain yogurt		
8. Yogurt, with fruit		
9. Ice cream		
10. Ice milk		
11. Natural cheeses: Cheddar, Swiss, Brick		
12. Cottage cheese		
13. Ricotta cheese		
14. Processed cheese: such as American slices		
15. Processed cheese food		
16. Soy milk (plain or flavored)		

Recipe Page

Yo-Cot Parfait

Equipment needed:
a variety of glasses or dishes of about 10 ounce capacity (clear plastic soda fountain glasses are ideal)
large spoons
spoons for eating parfait
knife
chopping board
can opener
measuring cup

Ingredients for each parfait:
1/2 large or 1 small banana, sliced in rounds
1/2 cup cottage cheese or 1/2 cup plain yogurt
1/4 cup crushed pineapple, canned in juice
1 Tbsp. raisins or chopped peanuts



Instructions: Layer the sliced banana with the yogurt or cottage cheese in a glass or dish. Top with the crushed pineapple and sprinkle with the raisins or nuts. Eat right away.

Suggestions: Substitute other fresh, canned, or frozen fruit for the bananas. Try combinations of your favorite fruits and toppings. Fruits canned or frozen without heavy, sugary syrups are low in calories.

Protein Foods

Focus

This group includes both animal and vegetable products that are excellent sources of protein, B-complex vitamins, and certain minerals (iron, phosphorus, and zinc).

Objectives

The student will be able to

1. identify this group as a good source of protein, minerals (iron, phosphorus, and zinc), and B-complex vitamins.
2. for two animal and two vegetable foods from this group, list amounts that constitute a serving and state a nutrient provided by each.
3. recognize that all teenagers need at least two servings from this group, while pregnant teenagers need three or more.
4. recognize that animal products are the only source of vitamin B_{12}.

Teacher's Notes

This food group includes meat, poultry, fish, and beans. It provides protein, vitamin B_6 and other vitamins, and minerals including phosphorus, iron, and zinc. Among the foods in this group are the following:

- beef, veal, lamb, pork, and poultry
- fish and shellfish (shrimp, oysters, clams, crabs, etc.)
- dry beans, dry peas, lentils, soybeans, and peanuts and peanut butter
- nuts and seeds
- eggs

Choices from this group should be varied because each food provides special advantages. For instance, red meats are good sources of zinc; liver and egg yolks provide vitamin A; dry beans, peas, soybeans, and nuts are high in magnesium.

All animal foods contain vitamin B_{12}; vegetable foods do not.

—from *The Hassle-Free Guide to a Better Diet*, USDA

Information Handout

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over the handouts with the class or individual students to emphasize particular points or answer questions. "The Puzzle Page" for this lesson can be used as an in-class exercise or a take-home assignment completed with the help of others.

References

Davis, Carole A., and others. *Food*. Home and Garden Bulletin No. 228. U. S. Department of Agriculture, Washington, DC: U. S. Government Printing Office, 1979.

Katt, Sally, ed. *"What's to Eat?" and Other Questions Kids Ask About Food*. Yearbook of Agriculture, 1979. Washington, DC: U. S. Government Printing Office, 1979.

Mahan, L. Kathleen, and Jane Mitchell Rees. *Nutrition in Adolescence*. St. Louis, MO: Times Mirror/Mosby College Publishing, 1984.

Suggested Activities

1. Animal or Vegetable?

PREPARATION. Collect pictures of protein foods and paste them on cards, labeling each with its name. On the reverse, list the type of protein each offers (animal or vegetable), its particular nutritional advantages (vitamins, minerals, low in calories, etc.), and its serving size (as listed on the "B-right Ideas" sheet for this lesson or in the Mini Food Composition Table). Examples follow:

• Chicken	Animal protein Low in calories Provides vitamin B_{12} Serving: 2-3 oz., cooked, without bone
• Peanut butter	Vegetable protein Source of magnesium Serving: 4 oz. or 1/2 cup

ACTIVITY. Students use these cards as flash cards to quiz each other on the nutritional advantages and servings sizes of protein-group foods. It isn't necessary for each student to repeat everything on each card. However, student should develop an understanding of the variety of foods and of nutrients included in this group.

Extend this exercise by having students suggest ways to use these foods in their diets. Remind them that pregnant teens need three or more servings daily of foods from this group.

2. A Protein Log

PREPARATION and ACTIVITY. Ask students to keep a log for a day or two of all protein foods they consume. They can share this information in class, and, if they would like, can suggest to each other possible improvements in their intake of protein foods.

3. Nutty and Seedy Characters

PREPARATION. Collect samples of nuts and seeds and/or their products. Students may want to help in this collection. These foods are available in supermarkets, co-ops, natural foods stores, and stores that carry "ethnic" foods. Label and display the products.

ACTIVITY. Poll the students to learn which products they've tasted, whether they like them, and which, if any, they'd like to sample. A simple preparation exercise could follow. To prepare for it, have students browse through vegetarian cookbooks in the public or school library.

4. Celery Snacks

PREPARATION and ACTIVITY. Prepare "Stuffed Celery Logs I and II" in class, if facilities permit, or prepare them ahead and keep carefully chilled until serving time. Recipes appear on page 121. Each recipe uses one animal and one vegetable protein food. Duplicate the recipe and suggest that students share it at home. Since some individuals dislike liver and would be unwilling to try a recipe that includes it, this dish could be presented for tasting as a "mystery recipe."

B-right Ideas: Protein Foods

Include:

- beef, veal, lamb, pork, poultry
- fish and shellfish (shrimp, oysters, clams, crabs, etc.)
- organ meats (liver, kidneys, etc.)
- dry peas and beans, soybeans, lentils, peanuts and peanut butter
- nuts and seeds
- eggs

Provide:

- protein
- B-complex vitamins
- minerals including phosphorus, iron, and zinc

All teens need two servings from this group each day. Pregnant teens need three or more servings each day

It's a good idea to vary your choices among these foods. Each has different important nutrients.

—Red meats and oysters are good sources of zinc.
—Liver and egg yolks provide vitamin A.
—Dry beans, dry peas, nuts, and soybeans are rich in magnesium.
—Seeds provide polyunsaturated fatty acids--which are essential in your diet.
—Fish and poultry are low in calories and saturated fat.

Several substances are found only in animal protein: vitamin B_{12} and cholesterol.

Vitamin B_{12}

Only foods of animal origin contain vitamin B_{12}, which your body uses to form new blood cells and to help your nerves and muscles function.

Cholesterol

All meats and dairy products supply cholesterol. It occurs only in animal products. The highest concentration is found in organ meats (such as liver and kidneys) and in egg yolks. Fish and shellfish (except for shrimp) are relatively low in cholesterol.

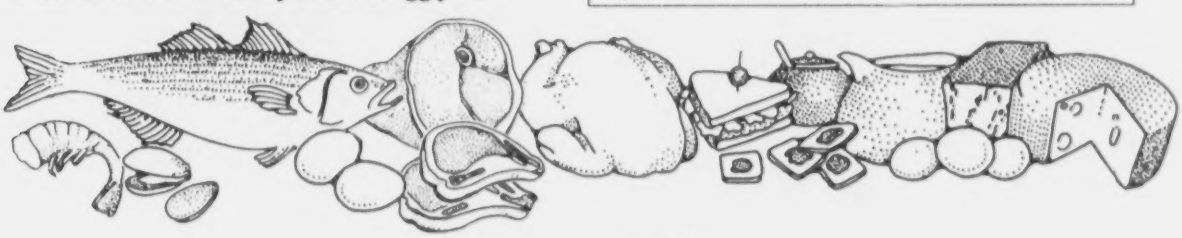
Scientists are studying how eating large amounts of cholesterol affects your health. It's a good idea to eat moderate amounts of cholesterol and to be careful about overdoing it!

Fat

If you choose to get protein from red meats, be careful when shopping. Select cuts that don't have a lot of fat in the muscle. These meats should be red and firm. Meats graded "choice" or "select" have less fat than other cuts do.

Serving Sizes:

- three ounces of lean, cooked meat, poultry, or fish without bone
- two eggs
- one to one and one-half cups cooked dry beans, dry peas, soybeans, or lentils
- four teaspoons peanut butter
- one-half to one cup nuts, sesame seeds or sunflower seeds



Worksheet

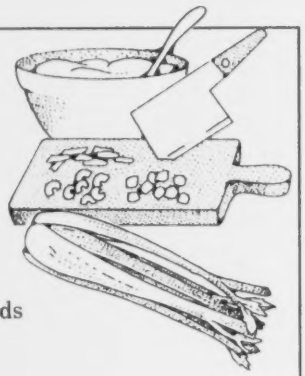
The Puzzle Page

N	B	X	N	Z	L	M	S	D	L	O	P	Y
W	X	S	U	N	F	L	O	W	E	R	H	P
C	W	M	E	G	G	O	F	P	H	F	O	H
T	R	B	E	A	N	S	Y	C	W	S	S	X
A	O	A	M	A	V	R	C	S	O	Y	P	Y
J	B	D	B	E	T	U	A	E	T	R	H	G
Z	V	E	A	L	P	P	L	S	O	E	O	R
A	E	H	U	C	G	E	O	A	A	D	R	Y
K	L	O	I	Q	F	A	R	M	E	D	U	S
Y	P	O	R	K	E	N	I	E	Z	Q	S	R
Q	M	Y	O	L	K	U	E	F	A	Z	S	W
J	L	T	N	M	U	T	L	I	V	E	R	A
U	C	H	O	L	E	S	T	E	R	O	L	T
C	V	X	U	Y	I	T	B	N	O	L	T	M

There are 19 words hidden in the jumbled letters above. Can you find them? All the words refer to sources of protein. The hidden words go up and down, across, and diagonally. These words complete the blanks in the sentences below.

1. A good non-meat source of protein, soy _____.
2. Red _____ is a good source of zinc.
3. Very young and tender beef is called _____.
4. _____ includes chicken, turkey, and duck.
5. Oink! Oink! food. _____
6. _____ sauce is made from _____ (same word) beans.
7. _____ beans or peas are good sources of magnesium.
8. A seafood low in cholesterol, sometimes eaten raw. _____
9. A mineral found in protein foods. _____ (starts with "P")
10. Another mineral found in protein foods. _____ (what you don't have to do to permanent press clothes)
11. A substance found only in animal foods. _____.
12. "Open, _____." (a type of seed)
13. _____ seeds contain polyunsaturated fatty acids.
14. What one chicken said to another: "That's no _____." (a good source of cholesterol)
15. _____ is an organ meat that is made into sausage.
16. Something laid by chickens, platypuses, and bad comedians. _____
17. A sign in the Zodiac and a shellfish. _____
18. The flesh of fish and poultry is relatively low-_____..
19. The main ingredient in peanut butter. _____

Stuffed Celery Logs I



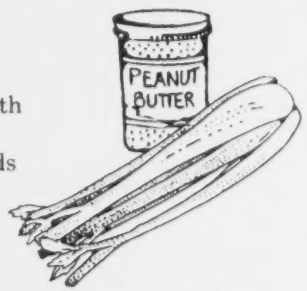
Equipment needed:
knife
medium sized mixing bowl
sink and scrub brush
fork and mixing spoon
paper towels
chopping board

Ingredients:
chunk liver sausage,
about 1-2 ounces per person
sweet pickle relish
plain yogurt or mayonnaise
celery
sesame seeds or sunflower seeds (optional)

Instructions:
Remove the casing from the sausage. Cut the sausage into chunks, then place in a bowl and mash with a fork. Add enough mayonnaise or yogurt to moisten to a smooth thick paste. Add a teaspoon or two of pickle relish. Mix well.

Scrub the celery stalks. Wipe dry. Stuff each stalk with the liver sausage mixture. Cut into serving-sized pieces. Sprinkle with seeds, if desired.

Stuffed Celery Logs II

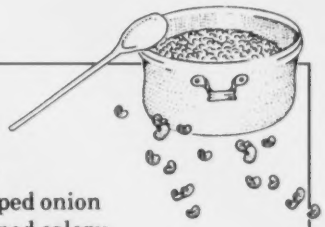


Equipment needed:
same as recipe above

Ingredients:
peanut butter, chunky or smooth
celery
sesame seeds or sunflower seeds (optional)

Instructions:
Scrub the celery stalks. Wipe dry. Stuff each stalk with the peanut butter. Put two stuffed stalks together, peanut butter sides facing. Cut into bite-sized pieces. Dip the ends in the seeds, if desired.

Recipe Page



Red Beans and Rice

Equipment needed:
Stove
heavy pan
cooking spoon

Ingredients:
1/2 cup chopped onion
1/2 cup chopped celery
1 clove garlic, quartered
2 Tbsp. water
16 ounce can kidney beans, drained
2 cups cooked rice
1 Tbsp. chopped parsley
1/4 tsp. salt
1/8 tsp. pepper

Instructions:
Simmer onion, celery, and garlic in water until tender. Remove garlic quarters. Add remaining ingredients and mix well. Simmer for 5 minutes.

Suggestions:
This recipe makes about 6 servings.

Variation: Add a ham bone or pieces of cooked pork or chicken with remaining ingredients. Simmer 30-45 minutes on low heat, stirring occasionally.

Substitute chili powder for pepper, to taste.

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Fats, Sweets, and Alcohol

Focus

Most foods in this group provide low levels of vitamins, minerals, and protein relative to their high calorie content. Fats, sweets, and alcoholic beverages are included in this group. Alcohol may pose significant health hazards for all teenagers, whether pregnant or not, and it may have negative effects on the developing baby.

Objectives

The student will be able to:

1. identify this group as a source of carbohydrates and fat providing mainly calories but not a significant source of vitamins, minerals, or protein.
2. recognize that individual energy needs should determine the amounts of foods consumed from this group.
3. include alcohol in this group and state that it offers little nutrition other than calories (energy) and may pose significant health hazards for the teenager.

Teacher's Notes

These foods provide low levels of vitamins, minerals, and protein compared to high levels of calories. Vegetable oils generally supply vitamin E and essential fatty acids. Butter and fortified margarine contribute vitamin A. Other foods in this group are mayonnaise and salad dressings; sugar, honey, syrups, candy, jams, jellies, sweet toppings, sugar-sweetened beverages, and other sweets; alcoholic beverages (wine, beer, liquor); and unenriched refined flour and baking products (chocolate chips, frostings, and candied fruit).

— from *The Hassle-Free Guide to a Better Diet*, USDA.

Information Sheet and Worksheet

Duplicate and distribute "B-right Ideas" and "The Puzzle Page." Read over the handouts with the class or individual students to emphasize particular points or to answer questions. "The Puzzle Page" can be completed as an in-class assignment. Have the students fill in the checklist, then discuss ways of cutting down on their consumption of foods from this group if necessary. Ask them to consider why they eat these foods, what social pressures exist to consume them, how they might substitute other, more nutritious foods, and so forth.

References

Ewald, Ellen Buchman. *Recipes for a Small Planet*. New York: Ballantine Books, 1988.

Lappé, Frances Moore. *Diet for a Small Planet*. Revised ed. New York: Ballantine Books, 1985.

Robertson, Laurel; Carol Flinders; and Brian Ruppenthal. *The New Laurel's Kitchen: A Handbook for Vegetarian Cookery and Nutrition*. Berkeley, CA: Ten Speed Press, 1986.

Worthington-Roberts, Bonnie S. and Sue Rodwell Williams. *Nutrition in Pregnancy and Lactation*. 4th ed. St. Louis, MO: Times, Mirror/ Mosby College Publishing, 1989.

Suggested Activities

1. Learn from Labels

PREPARATION. Collect front and back labels, complete wrappers, boxes, or containers from sugary foods and unenriched grain products. Examples of sugary foods are candies, jams, jellies, flavored gelatin desserts, ice cream toppings, pancake and waffle syrup, honey, and molasses. Examples of unenriched grain products are any whose label says "unenriched" or whose ingredient list does not include enriched or whole grain flour. Some examples are buns, cakes, bagels, and some macaroni or pasta foods.

ACTIVITY. Ask students to examine the products' ingredient lists and nutrition information and say what is similar about the products. They should observe the following similarities:

- Carbohydrate in the form of starch or sugar is the major energy source in these foods.
- These foods offer little protein and few or no minerals and vitamins.
- They have a relatively large number of calories per serving, especially the sugary foods.
- They have a long shelf life (as can be noted if the pull-date information appears on the packages).

Discuss the positive and negative aspects of these foods.

- Sugars offer some advantages.

—Sugars make foods taste good.
—Caramel (sugar) adds texture and color to bakery and other products.
—Sugars help thicken, gel, or preserve other foods.
—Unenriched grain products may cost less than whole grain or enriched ones.

- Sugary foods also have disadvantages.

—Nutritionally, sugars offer little besides calories.
—Sugars and unenriched grain products replace other, nutrient- dense foods in the diet.
—Sugars add calories without bulk or fiber.
—The extra calories sugary foods add to the diet can lead to excess weight gain.
—Sugar is a major factor contributing to dental caries (cavities).

Finally, ask students to suggest ways to substitute other, more nutritious foods for sugary ones. Suggestions might include

- always checking food labels for enriched or whole grain ingredients.
- using fresh fruit or low sugar preserves in place of high-sugar ones.
- when eating out, asking if the breads and other bakery products available are enriched or whole grain.
- eating fresh or roasted nuts instead of candy.
- making sundaes with fresh fruit instead of prepared toppings.
- asking at the bakery which products are enriched or whole grain.

2. Find the Hidden Sugar

PREPARATION. Collect a variety of food labels from products containing simple carbohydrates. (Some labels from activity 1 might be useful here.) Products include table sugar, fructose and other sweeteners, corn syrup, honey, date sugar, malt, invert sugar, molasses as well as ketchup, pickles, soups, dry cereals, cookies, and peanut butter.

ACTIVITY. Pass out the labels and discuss how foods often contain sugar, added to enhance the flavor or color of food or to affect its texture. Explain the difference between

simple and complex carbohydrates, and ask students how they might cut down on consumption of simple carbohydrates. Suggestions might include

- substituting fruit juice for sugared drinks, ades, or punches.
- substituting fruit or nuts for snacks of candy, pies, cakes, pastries, and cookies.
- using fruits canned in juice rather than in syrup.
- using unsweetened breakfast cereals.
- decreasing the amount of sugar added to recipes.

As a follow-up exercise, students can go through their cupboards at home and make a list of foods that contain sugar, and share these lists in class. Encourage them to involve others in the family or living group in this part of the activity.

3. What's to Drink?

PREPARATION. Duplicate the "Nutrition Information for Beverages" chart included in this lesson. (See page 126.) Collect pictures or containers of orange juice, whole milk, wine, beer, soft drinks, and hard liquor, as appropriate with your school's policy. If you wish, you can prepare labels for each using the information from the chart.

ACTIVITY. Ask students to examine the chart and/or labels. Then discuss the relative nutritional merits of the various drinks.

- Orange juice and milk have some quantity of each nutrient listed.
- Soft drinks offer little besides calories.
- As the alcohol content of a beverage increases, so does its calorie content. However, as the alcohol content increases, the content of other nutrients decreases.
- Alcohol has definite negative physical effects that the nonalcoholic drinks do not. Among these are the potential for drunkenness and health damage.

Have the class calculate the calorie content of equal volumes of beer, wine, and hard liquor. For 12 ounces of each, calorie counts are

beer:	151
wine:	298
hard liquor:	520

4. Teenage Drinking

This activity is designed to expose students to non-nutritional aspects of alcohol.

PREPARATION and ACTIVITY. Invite a speaker from the local chapter of Alcoholics Anonymous to discuss the problem of teenage drinking and to answer student questions on the topic. Ask the speaker to bring along appropriate handouts that students may add to their notebooks or journals.

5. Beverage Recipes with a Twist

PREPARATION and ACTIVITY. Prepare "Creamy Tomato Sipper" or "Frosted Banana Drink." Recipes appear on page 129. Duplicate and distribute copies for students to include in their notebooks or journals. Discuss in class the nutritional benefits of these nonalcoholic drinks and how students may be able to substitute these drinks in situations where alcohol consumption is expected.

Nutrition Information for Beverages

	Food energy (cal.)	Protein (g.)	Fat (g.)	Carbohydrate (g)	Calcium (mg.)	Iron (mg.)	Potassium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)	Niacin (mg.)
Soft drink 12 ounce can or glass	113	—	—	30	—	—	—	—	—	—
Orange juice 8 ounce glass	120	2.5	0.7	26	27	0.7	471	500	122	1.0
Whole milk 8 ounce glass	160	8.5	8.5	12	288	0.1	351	350	2	0.2
Beer 12 ounce glass or can 4.5% alcohol by volume	151	1.1	0	14	18	trace	90	—	—	2.2
Wine 3 1/2 ounce glass 12% alcohol by volume	87	0.1	—	4	9	0.4	94	—	—	0.1
Hard liquor (gin, whiskey, vodka, rum) 1 1/2 ounce 40% alcohol by volume 80 proof	65	—	—	trace	—	—	1	—	—	—

*Source: U. S. Department of Agriculture, *Nutritive Value of American Foods in Common Units*, Agriculture Handbook No. 456, 1975.

B-right Ideas: Fats, Sweets, and Alcohol

Includes:

- butter, margarine, mayonnaise, and salad dressings
- candy, sugar, jams, jellies, syrups, sweet toppings, and other sweets
- wine, beer, whiskey, brandy, and other alcoholic beverages
- unenriched refined breads, pastries, and other flour products

Provides:

- mainly calories
- vegetable oils supply vitamin E and essential fatty acids

These foods are generally used as ingredients in prepared foods or are added to other foods at the table. Others are dietary "extras" that are enjoyable to eat, but not very nutritious.

Unlike the other food groups, there are no set number of daily servings recommended for this group. These foods provide mainly calories, and generally very few vitamins and minerals and little protein.

Serving Sizes:

- No serving sizes for this group have been defined. Amounts should be determined by individual energy needs.

Fats and Oils

Some of the vegetable oils supply vitamin E and essential fatty acids. Lesson 12 discusses other sources of vitamin E.

Ounce for ounce, fats and oils have more than twice the calories of protein or carbohydrates and keep hunger pangs away longer.

Unenriched Refined Baked Goods

These foods are included because they provide low levels of vitamins, minerals, and protein compared with foods in the other four foods groups. These foods also tend to be high in calories.

Alcoholic Beverages

Pure alcohol has almost twice the calories per ounce of protein or carbohydrates. This means pure alcohol supplies as many calories as fats and oils. However, few alcoholic beverages are 100 percent alcohol. In general, the higher the alcohol content of a beverage, the higher the calories.

Besides supplying "empty calories," alcohol interferes with the absorption of certain vitamins and minerals.

Alcohol is one of the most used and abused drugs in our society. Addiction to alcohol has serious effects on both the body and the mind.

Worksheet

The Puzzle Page

Directions: The foods listed below belong in the fifth food group. Next to each food is a blank. Write whether each one is an alcohol food, a sugar product, or mainly fat or oil. Then check one of the three boxes: do you eat the food every day, occasionally, or never?

When you're all finished, count the number of foods in each category (alcohol, sugar, fat/oil). How many of each do you eat regularly? How many do you eat rarely or never? Are there any foods you think you should cut down on? Which? Can you think of ways of helping other students in the class cut down on the foods they would like to eat less of?

	Category	Every day	Occasionally	Never
marshmallows	_____	☐	☐	☐
hard liquor	_____	☐	☐	☐
candy bar	_____	☐	☐	☐
jam or preserves	_____	☐	☐	☐
lard	_____	☐	☐	☐
ice cream syrup	_____	☐	☐	☐
corn syrup	_____	☐	☐	☐
soft drinks	_____	☐	☐	☐
chocolate	_____	☐	☐	☐
hard candy	_____	☐	☐	☐
mayonnaise	_____	☐	☐	☐
margarine	_____	☐	☐	☐
white sugar	_____	☐	☐	☐
wine or wine coolers	_____	☐	☐	☐
brown sugar	_____	☐	☐	☐
maple syrup	_____	☐	☐	☐
caramels	_____	☐	☐	☐
butter	_____	☐	☐	☐
honey	_____	☐	☐	☐
molasses	_____	☐	☐	☐
beer	_____	☐	☐	☐
vegetable oil	_____	☐	☐	☐
Totals	_____	☐	☐	☐

Creamy Tomato Sipper

Equipment needed:
large jar with a tight-fitting cap or a blender
spoon
knife (optional)
measuring cup and spoons
paper cups for serving

Ingredients:
4 cups tomato juice, chilled
1 cup plain (unflavored) yogurt
1 teaspoon lemon juice
2-3 drops Tabasco (optional)
pepper to taste

Instructions:
Combine the ingredients in a large jar with a tight-fitting cap or place in a blender. Shake well or blend until well mixed. Chill, if desired, or serve immediately.

Suggestions:
This recipe makes 4-6 large servings (about 9 ounces each). Each serving contains 50 to 80 calories per serving. The servings could be "stretched" in the classroom to serve 8-12.

Frosted Banana Drink

Equipment needed:
blender
knife
spoon
paper cups for serving
measuring cup

Ingredients:
2 ripe bananas
1 cup milk
1 cup plain yogurt (unflavored)
1/2 cup vanilla ice cream
dash nutmeg

Instructions:
Peel the bananas and cut into chunks. Place all ingredients in the blender. Blend until smooth and frothy. Serve immediately, or chill and serve later.

Suggestions:
Substitute vanilla ice milk or frozen yogurt for the ice cream to lower the fat content of the drink.

As above, this recipe makes 4-6 large servings (about 9 ounces each). Each serving contains about 210-150 calories. This recipe could be "stretched" in the classroom to serve about twice as many as the recipe suggests.

Resources

Annotated Bibliography
Films, Filmstrips, and Videos
Journal and Magazine Articles
Booklets and Pamphlets

Annotated Bibliography

Adams, Catherine E. *Nutritive Value of American Foods in Common Units*. Agriculture Handbook No. 456. U.S. Department of Agriculture, Washington, DC: U.S. Government Printing Office, 1975.

A comprehensive listing of standard measures of common foods.

Adams, Catherine E., and Martha Richardson. *Nutritive Value of Foods*. Home and Garden Bulletin No. 72. U.S. Department of Agriculture. Washington, D.C.: U.S. Government Printing Office, 1981.

A less comprehensive listing than Handbook No. 456, above, but probably more useful to the general consumer. Includes updated information on breakfast cereals, dairy products, and fatty acid content of foods. Available from your Country Cooperative Extension Office.

Barr, Linda and Catherine Monserrat. *Un nuevo comienzo: dedicado a las jovenes que están embarazadas*. Revisado por Caroline Gaston con Toni Berg y estudiantes de New Futures School. Albuquerque, NM: New Futures, 1983.

Escrito para las jóvenes, este libro cubre diferentes etapas durante el embarazo de las adolecentes. En él se incluyen excelentes planos gráficos y hojas de información que pueden utilizarse como folletos.

Barr, Linda, and Catherine Monserrat. *Teenage Pregnancy: A New Beginning*. Albuquerque, N.M.: New Futures, Inc., 1987.

Written for the teenager, this book covers diverse aspects of teenage pregnancy. It includes excellent charts and information sheets that would make good handouts.

Barr, Linda, and Catherine Monserrat. *Working with Childbearing Adolescents. A Teacher's Guide for Teenage Pregnancy: A New Beginning*. Albuquerque, N.M.: New Futures, Inc., 1987.

An articulate guidebook with background information and creative suggestions for teachers working with pregnant adolescents.

Boyd, Fannie Lee. *Fun and Learn: Nutrition Games*. Athens, GA: University of Georgia, 1974.

A collection of "make-your-own" games. Many could be adapted for use in nutrition in teenage pregnancy programs.

Bradley, Chet. *A Guide to Curriculum Planning in Health Education*. Madison, WI: Wisconsin Department of Public Instruction, 1986. Second printing.

A comprehensive guide to the subject for all grade levels. Several of the late-elementary-level activities might be useful in some teenage parent programs. Offers units on community health, consumer health, family life education, nutrition, and substance use and abuse, among others.

Brody, Jane. *Jane Brody's Nutrition Book*. New York: W.W. Norton and Company, 1982.

A readable, nontechnical reference covering many facets of nutrition. Of particular interest: chapters on pregnancy and how to feed babies and children. Includes recipes and statistical and historical data.

Brody, Jane. *Parents' Guide to Feeding your Kid Right: Birth Through Teen Years.* Children's Television Workshop Series, 1989.

Byall, Betty, and Teresa Y. Chan. *Feeding Advice for You and Your Baby.* Los Angeles: Nutrition in the Life Cycle, 1980.

Contains a short section on nutrition during pregnancy. Most of this booklet is devoted to infant nutrition, with examples of menus for various ages.

Christian, Jan, and Janet Greger. *Nutrition for Living.* 2nd ed. Menlo Park, CA: The Benjamin/Cummings Publishing Company, Inc., 1987.

Excellent teacher's and general classroom reference for college freshmen, but not nutrition majors. An easily readable and reliable resource for general nutrition.

Committee on Maternal Nutrition, Food and Nutrition Board, National Research Council, National Academy of Sciences. *Maternal Nutrition and the Course of Pregnancy.* Washington, D.C.: U.S. Government Printing Office, 1970.

A fairly old but technically useful resource. Contains many pre-1970 scientific resources.

Corruccini, Carol G., and Patricia E. Cruskie. *Nutrition During Pregnancy and Lacatation.* Sacramento: California Department of Health, 1975.

Published for health-care professionals, this publication identifies nutritional risk factors in pregnancy, most of which apply to adolescent pregnancy as well. Chapters on nutritional recommendations and daily food guide could be useful in preparing handouts on foods in each food group.

Davis, Carole A., and others. *Food.* Home and Garden Bulletin No. 228. U.S. Department of Agriculture, Washington, DC: U.S. Government Printing Office, 1979.

Excellent, colorful presentation of the four-plus-one food groups. Emphasizes importance of breakfast; discusses sugar, salt, fat, fiber, and snacking. Recipes for each of four food groups included.

Dreith, Rita Jean Vallero. *Picture Yourself a Cook.* Denver, CO: The Author, 1939 S. Kearney Way, 1977.

A guide to cooking designed for nonreaders or teens with reading difficulties. A good example of using pictures to help in cooking.

Elswick, Linda L. *Teenage Pregnancy and Nutrition: A Review.* Albany, NY: The University of the State of New York, 1980.

Published by the Nutrition Education and Training (NET) Program. A good overview of nutrition in teenage pregnancy with extensive list of references, selected annotated bibliography, and eight journal article reprints.

Ewald, Ellen Buchman. *Recipes for a Small Planet.* New York: Ballantine Books, 1988.

Offers a short explanation of protein complementary as developed by Frances Moore Lappé, but is dedicated mostly to recipes using the concept. Good for introducing unusual or new foods to students.

Farb, Peter, and George Armelagos. *Consuming Passions: The Anthropology of Eating.* Boston: Houghton Mifflin Co., 1983.

A witty, entertaining treatment of the many cultural aspects of eating, including several pages on eating taboos during pregnancy. Good outside reading for older student. Extensive reference list.

Feeding Infants: A Nutrition Monograph for Health Professionals. 2nd ed., rev. Madison, WI: Wisconsin Department of Health and Social Services, 1979.
Endorsed by the Wisconsin chapter of the American Academy of Pediatrics. Somewhat technical, but covers many aspects of infant feeding. Useful reference for the teacher.

Fomon, Samuel J. *Infant Nutrition.* 2nd ed. Philadelphia: W.B. Saunders Co., 1974.
The authoritative source of information on infant nutrition. Fairly technical, however, the first chapter includes trends and an historical perspective.

Goodwin, Mary T., and Gerry Pollen. *Creative Food Experiences for Children.* Washington, DC: Center for Science in the Public Interest, 1980.
Activities are aimed at a younger-than-teen age group, but some could be adapted for teenagers. Includes a useful recipe section.

Hayes, Jack, ed. *Food for Us All.* Yearbook of Agriculture, 1969. Washington, DC: U.S. Government Printing Office, 1969.
Old, but sections on buying and cooking food remain useful.

Hess, Mary, and Anne Hunt. *Pickles and Ice Cream.* New York: McGraw-Hill, 1982.
Easy-to-read popular book on nutrition during pregnancy. Includes "quick quizzes" and useful charts and graphics.

How to Buy Food for Economy and Quality: Recommendations of the U.S. Department of Agriculture. New York: Dover Publications, Inc., 1975.
A collection of 13 "How to Buy" books previously published by the USDA. Includes meats, dairy products, fruits, and vegetables.

Katt, Sally, ed. *"What's to Eat?" and Other Questions Kids Ask About Food. Yearbook of Agriculture,* 1979. Washington, DC: U.S. Government Printing Office, 1979.
An excellent, colorful classroom resource. Chapters on supermarket shopping and general nutrition are useful for pregnant teens.

Katz, Deborah, and Mary T. Goodwin. *Food: Where Nutrition, Politics and Culture Meet.* Washington, DC: U.S. Government Printing Office, 1976.
Section on "Food and the Consumer" is very useful: treats food choice, safety, pricing, and labeling information.

Lappé, Frances Moore. *Diet for a Small Planet.* Revised ed. New York: Ballantine Books, 1985.
The classic, extensive, and readable resource for information about protein complementary. Recipes for the different combinations of protein foods are included.

Luke, Barbara. *Maternal Nutrition.* Boston: Little, Brown and Co., 1985.
A sourcebook for health-care professionals including chapters on iron-deficiency anemia, pica, lactose intolerance, smoking, Fetal Alcohol Syndrome, and adolescent pregnancy. Chapters contain further references.

Mahan, L. Kathleen, and Jane Mitchell Rees. *Nutrition in Adolescence.* St. Louis, MO: Times, Mirror/Mosby College Publishing, 1983.
Comprehensive and sound nutritional advice including theory and practical information on teenage nutrition. Useful as a reference for the teacher.

Mapes, Martha, and Gail Keown. *Try Something New.* Ithaca, NY: Cornell University, n.d.

Lesson plans cover calcium, vitamin C, vitamin A, and iron. Target audience is adolescents and preadolescents.

National MCH Clearinghouse. *Nutrition and Adolescent Pregnancy: A Selected Annotated Bibliography.* Washington, DC: National MCH Clearinghouse, 1986.

Sourcebook for educators and others working to improve the health of teenage mothers and their babies. Developed by USDA, DHHS, and March of Dimes. Includes articles, books, and educational materials.

Owen, Anita Yanochick, and Reva T. Frankle. *Nutrition in the Community.* 2nd ed. St. Louis, MO: The C.V. Mosby Co., 1986.

Good overview of community nutrition programs that may be of help to the pregnant teen or teen parent.

Pearl, Anita May. *Completely Cheese.* New York: Warner Books, 1979.

History, classification of cheese; recipes. A great book for browsing.

Philadelphia Department of Public Health. *Healthy Foods, Healthy Baby.* City of Philadelphia, 500 South Broad Street, Philadelphia, PA 19146.

Kim and Maria meet at the clinic and learn about nutrition in pregnancy. An attractive resource that was focus group tested with teen readers.

Pipes, Peggy L. *Nutrition in Infancy and Childhood.* 4th ed. St. Louis, MO: Times, Mirror/Mosby College Publishing, 1989.

Chapters on infant feeding and nutrition, specific nutrients and their sources, and dietary requirements.

Robertson, Laurel, Carol Flinders, and Brian Ruppenthal. *The New Laurel's Kitchen: A Handbook for Vegetarian Cookery and Nutrition.* Berkeley, CA: Ten Speed Press, 1986.

A very popular and well-respected volume on vegetarian cooking. Especially useful tables of some less-common foods and their nutrient contents.

Satter, Ellyn. *Child of Mine: Feeding with Love and Good Sense.* Expanded ed. Palo Alto, CA: Bull Publishing Co., 1986.

Excellent resource for nutrition information before and after pregnancy; emphasis is on feeding infants and toddlers.

Satter, Ellyn. *How to Get Your Kid to Eat...But Not Too Much.* Palo Alto, CA: Bull Publishing Co., 1987.

Feeding newborns through adolescents. Also, sections on children with special eating problems. A superb resource for parents and teachers.

Scott, Keith G., Tiffany Field, and Euan Robertson, eds. *Teenage Parents and their Offspring.* New York: Grune and Stratton, 1980.

Excellent review of many facets of teenage pregnancy. Abounds with references. Chapter on nutrition and early teenage pregnancy is somewhat technical.

Stern, Judith S., and R.V. Denenberg. *How to Stay Slim and Healthy on the Fast Food Diet.* Englewood Cliffs, NJ: Prentice-Hall, Inc., 1980.

Highly applicable to all teenagers, pregnant or not. Provides food tables for many of the fast food chains. However, if this book is used in a teenage pregnancy class, instructor must take care to emphasize that pregnancy is not the time for dieting. Otherwise, a good reference for the teacher.

Tannahill, Reay. *Food in History*. New York: Stein and Day Publishers, 1973.
An interesting and entertaining reference good for answering questions about the origin of a particular food. Some teenagers might enjoy it as outside reading.

Weaver, Ann A. *Planning Meals and Shopping*. Palo Alto, CA: Fearon Publishers, 1970.
A workbook to help the younger teen with little experience in meal planning and food shopping.

Westpheling, Kathie, Sara Jane Vinson, and Lorelei Groll. *Nutrition Curriculum on Life-Cycle Nutrition Needs for School-Age Mothers and School-Age Parents*. San Jose: CA: Santa Clara County Health Department, 1981.
Curriculum guide with resource list, recipes, and many adaptable ideas.

Whitney, Julie. *Curriculum Guide for Health Education: Nutrition*. Washington, DC: The National Catholic Education Association, 1976.
Includes a unit on consumer education. Nutrition unit offers a module on nutrition during pregnancy.

Winick, Myron. *Growing Up Healthy*. New York: William Morrow and Co., Inc., 1982.
Nontechnical nutrition information from a leading doctor and nutritionist. Somewhat slanted towards breast-feeding. Could be read by older teenagers.

Worthington-Roberts, Bonnie S., and Sue Rodwell Williams, eds. *Nutrition in Pregnancy and Lactation*. 4th ed. St. Louis, MO: Times Mirror/Mosby College Publishing, 1989.
Excellent reference with an especially useful chapter on the nutritional needs of the pregnant adolescent.

Zackler, Jack, and Wayne Brandstadt, eds. *The Teenage Pregnant Girl*. Springfield, IL: Charles C. Thomas, 1975.
Includes chapters on obstetric and medical problems of teenage pregnancy and nutrition in teenage pregnancy.

Films, Filmstrips, and Videotapes

Listings marked with an asterisk (*) have been reviewed by Nutrition Education and Training Program nutritionists. Those with a BAVI number are available from the Bureau of Audiovisual Instruction (BAVI), University of Wisconsin-Extension, P.O. Box 2093, Madison, WI 53701-2093. BAVI is located at 1321 University Avenue, Madison, WI 53706; (800) 362-6888 or (608) 262-1644.

*Breastfeeding: A Special Closeness.** Film, 23 1/2 minutes. Motion, Inc., 4437 Klingle Street NW, Washington, DC 20015; 1977.
Parents talk about breast-feeding issues such as combining work and feeding and their diet during the nursing months. This film can serve as a good stimulus to discussion but should be supplemented with other information. African-American and Hispanic individuals are well represented.

*Build a Better Bag Lunch.** Film. Alfred Higgins Production, Inc., 9100 Sunset Boulevard., #100, Los Angeles, CA 90060; 1981. BAVI #10335. How to assemble a bag lunch and keep it safe to eat.

Clear Vision. Videocassette, 25 1/2 minutes. March of Dimes local chapter office, 1989.

Discusses implications and responsibilities of teen pregnancy, especially from the teen father's perspective.

Drugs, Smoking, and Alcohol During Pregnancy. Film, 12 minutes. Polymorph Films, Inc., 118 South Street, Boston, MA 02111.

Provides clear and concise information about the dangers associated with substance abuse during pregnancy but avoids moralizing.

*Eating on the Run.** Film, 15 1/2 minutes. Alfred Higgins Productions, Inc., 9100 Sunset Boulevard, #100, Los Angeles, CA 90060; 1975.

Addresses typical student problems such as how to get a balanced breakfast, lunch, and snacks in little time. Provides practical suggestions and ideas for quick, nutritious meals and snacks.

*The Fast Food Phenomenon.** Filmstrip or slides with cassette. Christina Stark, Department of Food and Nutrition, Cornell University, 309 Martha Van Rensselaer Hall, Ithaca, NY 14853; 1979.

A helpful discussion starter for a lesson on nutrition and fast foods.

Feeding with Love and Good Sense. Videocassette. Ellyn Satter, R.D., A.C.S.W., Bell Publishing, 110 Gilbert Avenue, Menlo Park, CA 94025; 1989.

Features four 15-minute segments addressing the interpersonal dynamics of the feeding relationship with newborns, infants, toddlers, and preschoolers.

First Foods. Film, 14 minutes. Films Society for Nutrition Education, 1700 Broadway, Suite 300, Oakland, CA 94612; 1979.

Reviews a selection of commercially prepared baby foods. Discusses and demonstrates home preparation of baby foods and provides basic information about starting babies on solid foods. Available in Spanish or English.

*Foods to Grow On.** Three filmstrips/cassettes. Tupperware Educational Services, Tupperware Home Parties, P.O. Box 2353, Orlando, FL 32802; 1978.

Investigates the role of food at different developmental stages. Uses values clarification techniques; is accompanied by activity guide and duplicating masters.

Good Food on a Shoestring, parts I and II. University of Wisconsin-Madison, Ag. Journalism Video Unit, 1983. Part I, BAVI #11372. Part II, BAVI #11373.

Both parts feature nutrition concepts and parent-child interaction skills. Part I discusses snacks, key vegetables, and comparison shopping; Part II presents meatless main dishes, new foods and recipes, and balanced meals.

Great Expectations. Film, 22 minutes. Films, Society for Nutrition Education, 1700 Broadway, Suite 300, Oakland, CA 94612; 1975.

Shows how to select nutritionally balanced meals that keep mother healthy and give her baby its best start in life. Available in Spanish or English.

Have a Healthy Baby. Videotape, 21 minutes. Churchill Films, 662 North Robertson Boulevard, Los Angeles, CA 90069; 1968. BAVI #02633.

Hey, Baby. Videotape, 16 minutes. Healthy Infant Outcome Project, School of Public Health, University of Minnesota, Box 197, Mayo Building, 420 Delaware Street SE, Minneapolis, MN 55455.

Focuses on the importance of eating right and gaining weight to encourage the development of a healthy baby. An entertaining presentation of an important topic.

Inside My Mom. Slides/videocassette, 8 minutes. The National Foundation/March of Dimes, 1275 Mamaroneck Avenue, White Plains, NY 10605; 1990.

It's Up to Me. Videocassette, 13 minutes. March of Dimes local chapter office, 1988.

Features four pregnant women (teens included) discussing decisions they've made about eating, drinking, and smoking and the effects of these on their children.

Mastery of Motherhood. Three-part videocassete series, 19 minutes each. Alabama Cooperative Extension Service, Information Services, Auburn University, Alabama 36849-5623; 1989.

Weight gain during pregnancy, healthy eating during pregnancy, and common pregnancy myths are discussed in this three-part series.

Meat and Poultry: How to Select Them. Film, 18 minutes. FilmFair Communications, 10900 Ventura Boulevard, Studio City, CA 91604; 1976. BAVI #01117.

Emphasizes meat color, age, and economy in selecting pork, beef, lamb, and chicken during a visit to a butcher.

No Better Gift. Videocassette, 22 minutes. Films Society for Nutrition Education, 1700 Broadway, Suite 300, Oakland, CA 94612; 1984.

Presents nutritional requirements and eating patterns of children aged one to five. Discusses guidelines to help parents take an active role in their children's nutrition. Available in Spanish or English.

Nutrition: Fueling the Human Machine. Film, 18 minutes. BFA Educational Media, 2211 Michigan Avenue, P.O. Box 1795, Santa Monica, CA 90406; 1978. BAVI #03831.

Outside my Mom. Slides or film, 11 minutes. The National Foundation/March of Dimes, 1275 Mamaroneck Avenue, White Plains, NY 10605; 1987.

Pregnant Teens: Taking Care. Videocassette, 22 minutes. Journal Films, Inc., 930 Pitner Avenue, Evanston, IL 60202; 1987. BAVI #11834.

Follows two young women as they assume responsibility for nutrition and for smoking and alcohol consumption during their pregnancies.

Snacks Count, Too! Film, 11 minutes. Journal Films, Inc., 930 Pitner Avenue, Evanston, IL 60202; 1975. BAVI #11471.

Introduces the idea that snacks can be part of a nutritious diet and suggests that they should be foods from regular meals. Emphasizes individual responsibility for diet.

Things My Mother Never Told Me. Videocassette, 13 minutes. Journal Films, Inc., 930 Pitner Avenue, Evanston, IL 60202; 1987. BAVI #11832.

Breaks down the myths and misinformation about women's bodies, reproduction, preventive health care, and contraception.

*Winning the Grocery Game: Language and the Supermarket.** Two sound filmstrips with teaching aids. The Learning Seed Company, 145 Brentwood Drive, Palatine, IL 60067; 1977.

An interesting presentation of information and ideas for projects. Tone is fairly anti-big business but leaves the choice of where and how to shop up to students.

What are You Going to do About Alcohol? Two filmstrips/cassettes. Guidance Associates, Box 300, White Plains, NY 10602; 1975.

Poses various teen drinking situations, presents alcohol as a drug, and discuses its social role.

Journal and Magazine Articles

"A New Look at Teenage Pregnancy." *Environmental Nutrition* 7.8 (August 1984), pp. 1-3.

Abrams, Barbara. "Helping Pregnant Teenagers Eat Right." *Nursing 81* 11.3 (March 1981), pp. 46-47.

Appledorf, Howard. "Nutritional Analysis of Foods from Fast-Food Chains." *Food Technology* 28 (April 1974), pp. 50-55.

Bartel, Charlotte Heckman. "Old Enough to Get Pregnant...Too Young to Have Babies." *Nursing 81* 11.3 (March 1981), pp. 44-55.

Block, Robert W., Steven Saltzman, and Sharon A. Block. "Teenage Pregnancy." *Advanced Pediatrics* 28 (1981), pp. 75-98.

Caldwell, Mariel. "Nutrition in Adolescent Pregnancy." *Illinois Teacher* 23.4 (March/April 1978), pp. 204-209.

Dwyer, Johanna T., Jacob J. Feldman, and Jean Mayer. "Nutritional Literacy of High School Students." *Journal of Nutrition Education* 2 (Fall 1970), pp. 59-66.

Garn, Stanley M., Marquisa La Velle, Shelly D. Pesnick, and Stanley M. Ridella. "Are Pregnant Teenagers Still in Rapid Growth?" *American Journal of Diseases of Children* 138.1 (January 1984), pp. 32-34.

Heald, Felix P., and Marc S. Jacobsen. "Nutritional Needs of the Pregnant Adolescent." *Pediatric Annals* 9.3 (March 1980), pp 21-31.

"How Nutritious are Fast-Food Meals?" *Consumer Reports* (May 1975), pp. 278-281.

Iber, Frank L. "Fetal Alcohol Syndrome." *Nutrition Today* 15.5 (September/October 1980), pp. 4-11.

Lee, Essie E. "Food Fads, Nutrition, and Teenage Mothers." *Childhood Education* 53.3 (January 1977), pp. 143-146.

MacDonald, Lorry A., George A. Wearring, and Olive Moase. "Factors Affecting Dietary Quality of Adolescent Girls." *Journal of the American Dietetic Association* 82.3 (March 1983), pp. 260-263.

"Nutritional Concerns During Adolescence." *Dairy Council Digest* 52.2 (March/April 1981).

Perloff, Betty P. and Ritva R. Butrum. "Folacin in Selected Foods." *Journal of the American Dietetic Association* 70 (February 1977), pp. 161-172.

Singleton, Nan Chachere, Harvey Lewis, and Jesse J. Parker. "The Diet of Pregnant Teenagers." *Journal of Home Economics* 68.4 (September 1976), pp. 43-45.

Spitze, Hazel Taylor. "Games that Teach." *Journal of Home Economics* 64.4 (April 1972), pp. 8-12.

Spitze, Hazel Taylor. "Innovative Techniques for Teaching Nutrition." *Journal of Nutrition Education* 2 (Spring 1971), pp. 156- 159.

Story, Mary. "Nutrition Issues and Adolescent Pregnancy." *Contemporary Nutrition* (General Mills) 12.1 (1987).

Books and Pamphlets Available Through Organizations

Prices cited are current as of August, 1990. Most of the organizations or institutions listed below can provide catalogs listing their publications and prices. The materials listed are student resources unless otherwise noted. These selected materials represent only a portion of currently available resources; contact these or other organizations for further titles.

American Cancer Society, Inc. National Headquarters, 777 Third Avenue, New York, NY 10017. Or contact your local division. In Wisconsin. ACS Wisconsin Division, 615 N. Sherman Avenue, Madison, WI 53704.

—*Special Delivery*. This handbook on smoking issues for pregnant adolescents is available in Wisconsin through participation in the ACS training program.

The American College of Obstetricians and Gynecologists. 409 12th Street SW, Washington, DC 20024-2188. Contact the college for its order form.

—*Adolescent Perinatal Health: A Guidebook for Services*. Teachers will find this free booklet a useful reference.

—*Food, Pregnancy, and Health*. This pamphlet is available at the cost of $12 per 50 copies.

The American Dietetics Association. 216 W. Jackson Boulevard, Chicago, IL 60606-6995.

—*Blue Ribbon Babies: Eating Well During Pregnancy*. Pamphlet number 9015; available for $3.95 per 25 copies.

—*Breastfeeding: Baby's Best Start*. Pamphlet number 0814; available for $1.20 per copy.

—*Feeding Your Baby: The First Year*. Pamphlet number 9017; available for $3.95 per 25 copies.

—*How to Have a Better Baby: Tips for Teens*. Pamphlet number 9016; available for $3.95 per 25 copies.

Cooperative Extension, Cornell University. Distribution Center #7, Research Park, Ithaca, NY 14850.
—*Iron: Who Needs It.* Pamphlet available for $4.50 per 25 copies.

March of Dimes Birth Defects Foundation. National Headquarters, 1275 Mamaroneck Avenue, While Plains, NY 10605. This organization offers a catalog of its resources.
—*Be Good to Your Baby Before it is Born.* Pamphlet available for $3.50 per 50 copies.
—*Dad, It's Your Baby Too.* Pamphlet available for $3.00 per 100 copies.
—*Double Trouble: Drugs, Alcohol, and Tobacco Abuse During Pregnancy.* Pamphlet available for $4.00 per 100 copies.
—*How Your Baby Grows.* Pamphlet available for $9.00 per 50 copies.
—*Recipes for Healthy Babies.* Pamphlet available for $3.00 per 50 copies.

National Dairy Council. 6300 N. River Road, Rosemont, IL 60018. Or contact your local office. In Wisconsin: Dairy Council of Wisconsin, Inc. 999 Oakmont Plaza Drive, Suite 51, Westmont, IL 60559. These organizations offer a catalog of materials they publish.
—*At this Very Special Time in Your Life.* Pamphlet available for $.60 per copy.
—*Guide to Good Eating.* Fact sheet available for $.10 per copy.

The following two pamphlets are available for free for 50 or fewer copies of either or both combined:
—*Caution: Baby Under Construction.* A pamphlet in English or in Spanish.
—*Good Eating Builds Better Babies.*

Ross Laboratories. 625 Cleveland Avenue, Columbus, OH 43216.
—*How to Breastfeed Your Baby.* A fact sheet available for $1.25 per 25 copies.
—*Nutrition, Growth, and Development During Your Baby's First Year: A Reference Book.* A booklet designed for teacher reference at $1.50 per copy.

University of Wisconsin-Cooperative Extension. Agriculture Bulletin, Room 245, 30 N. Murray Street, Madison, WI 53715. Or contact your County Extension Office for these publications or a list of the others it offers.
—*Expecting a Baby? How to Eat for Good Health.* Bulletin B7780 available for $.40 per copy.
—*The Hassle-Free Guide to a Better Diet.* Flyer BL 567 available for $.20 per copy.
—*Improve Nutrition and Save Money.* Bulletin B3260 available for $.30 per copy.
—*Menu Planning for One or Two.* Bulletin B3161 available for $.20 per copy.
—*Nutrients: Sources and Functions.* Bulletin B2630 available for $.25 per copy.
—*Parenting on Your Own.* Bulletin NCR 282 available for $2.40 per copy.
—*Parenting the First Year.* A 12-part reproducible newsletter, NCR 321, available for $1.80 per copy.

Wisconsin Clearinghouse. P.O. Box 1460, Madison, WI 53701. Write for a catalog of publications.
—*Alcohol, Other Drugs and Pregnancy: Risks for the Fetus.* Pamphlet number 164 available for $5.00 per copy.
—*Fetal Alcohol Syndrome Kit.* Teacher resource with student materials, number 123, available for $6.95 per kit.
—*Turning Points: A Resource Guide on Teenagers, Alcohol, Other Drugs, and Pregnancy.* A teacher resource, number TP1, available for $7.95 per kit.

Wisconsin Department of Health and Social Services. Division of Health, 1 W. Wilson Avenue, P.O. Box 309, Madison, WI 53701.

—*Food for Health*. Pamphlet number 402.

—*Infant Feeding Leaflet*. This item is available from the WIC program.

—*Iron Rich Foods*. Booklet number 4337.

Appendixes

A. Mini Food Composition Table
B. Fast Food Composition Table
C. Answers to the Survey and Puzzles

Mini Food Composition Table

This table was adapted from *Nutritive Value of American Foods in Common Units*, Agriculture Handbook no. 456, USDA.

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Almonds	10 nuts	60	1.9	0.5	23	0	Trace
Adzuki beans, cooked	1 cup	294	17.3	4.6	64	14	0
Apple (3 per lb.)	1 medium	80	0.3	0.4	10	120	6
Apple juice	6 oz.	87	0.2	1.1	11	—	2
Applesauce, unsweetened	1 cup	100	0.5	1.2	10	100	2
Apricots, canned	1 cup	93	1.7	0.7	30	4500	10
Asparagus, canned	1 cup	44	4.6	4.1	44	1240	37
Avocado	1/2 fruit	188	2.4	0.7	11	330	16
Bacon, 20 slices per lb., raw	2 slices	86	3.8	0.5	2	0	—
Bananas, medium	1 banana	101	1.3	0.8	10	230	12
Beans and frankfurters	1 cup	367	19.4	4.8	94	330	Trace
Beef, boneless chuck, lean (braised or stewed)	1 cup	300	42.0	5.3	18	20	—
Beef and vegetable stew, canned	1 cup	194	14.2	2.2	29	2380	7
Beer, 4.5% alcohol	12-oz. can	151	1.1	Trace	18	—	—
Beets, cooked	1 cup, diced or sliced	54	1.9	0.9	24	30	10
Beet greens, cooked	1 cup	26	2.5	2.8	144	7400	22
Biscuit, enriched	1 biscuit, 2" diam.	103	2.1	0.4	34	Trace	Trace
Black (turtle) beans, cooked, drained	1 cup	225	15.0	2.9	47	Trace	0
Black eyed peas, cooked	1 cup	230	15.0	4.6	74	10	0
Blueberries, raw	1 cup	90	1.0	1.5	22	150	20
Bologna	1 slice, 1 oz.	86	3.4	0.5	2	—	—
Bread: cracked wheat	1 slice, 1 oz.	66	2.2	0.3	22	Trace	Trace
French, enriched	1 slice, 1 oz.	73	2.3	0.6	11	Trace	Trace
raisin, enriched	1 slice, 1 oz.	66	1.7	0.3	18	Trace	Trace
rye	1 slice, 1 oz.	61	2.3	0.4	19	0	0
white, enriched	1 slice, 1 oz.	74	2.4	0.7	26	Trace	Trace
whole-wheat	1 slice, 1 oz.	61	2.6	0.8	25	Trace	Trace
Broccoli, frozen	10 oz., chopped	82	9.1	2.0	165	7380	200

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Brownie, commercial	1 oz.	117	1.4	0.5	11	57	Trace
Brussels sprouts, cooked	1 cup	65	6.0	1.1	37	910	71
Butter	1 Tbsp.	102	0.1	0	3	470	0
Buttermilk, from skim	1 cup	88	8.8	0.1	296	10	2
Cabbage, raw	1 cup, shredded	17	0.9	0.3	34	90	33
Cabbage, chinese, raw, shredded	1/2 cup	5	0.5	0.3	37	1050	16
Cake: angelfood	1 slice, 1 oz.	81	2.1	0.1	3	0	0
chocolate cupcake, without icing	1 cupcake, 1 oz.	103	1.3	0.2	21	45	Trace
Candy: milk chocolate	1 oz.	147	2.2	0.3	65	80	Trace
jelly beans	1 oz., 10 jelly beans	104	Trace	0.3	3	0	0
Cantaloupe	1 cup, 20 balls	48	1.1	0.6	22	5440	53
Carrots, raw	3 oz.	30	0.8	0.5	27	7930	6
Cashew nuts, roasted in oil	1 oz.	159	4.9	1.1	11	30	—
Catfish, breaded and fried	3 oz.	199	15.7	1.2	38	24	0
Cauliflower, raw	1 cup, chopped	31	3.1	1.3	29	70	90
Catsup	1 Tbsp.	16	0.3	0.1	3	210	2
Celery, raw	1 cup, chopped	20	1.1	0.4	47	320	11
Cheese: American	1 slice, 1 oz.	100	6.3	0.2	188	330	0
cheddar	1 oz.	113	7.1	0.3	213	370	0
cottage, small curd	1 cup	223	28.6	0.6	197	360	0
parmesan	1 Tbsp., shredded	21	1.9	Trace	61	60	0
Swiss	1 oz.	105	7.8	0.3	262	320	0
Cheese food/spread	1 Tbsp.	40	2.2	0.1	79	120	0
Cherries, sweet, raw	10 cherries	47	0.9	0.3	15	70	7
Chicken: light meat	2 oz.	94	17.9	0.7	6	34	—
dark meat	2 oz.	100	15.9	1.0	7	84	—
Chickpeas, cooked, drained	1 cup	270	15.0	4.9	80	Trace	0
Chili with beans, canned	1 cup	339	19.1	4.3	82	150	—
Chow mein, canned, chicken without noodles	1 cup	95	6.5	1.3	45	150	13

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Clams, canned, minced	1 cup	157	25.3	—	—	—	—
Collards, frozen	10 oz. container, chopped	91	8.8	3.1	542	19310	193
Cookies: chocolate chip	2 oz., 10 small	250	2.9	1.0	21	60	Trace
fig bars	2 oz., 4 cookies	200	2.2	0.6	44	60	Trace
vanilla wafers	1 oz., 10 cookies	139	1.6	0.1	12	40	0
Corn: canned	1 cup solids	139	4.3	0.8	8	580	7
creamed	1 cup	210	5.4	1.5	8	840	13
on the cob	5" ear	70	2.5	0.5	2	310	7
Corn flakes, fortified	1 cup	97	2.0	0.6	—	1180	9
Corn grits, cooked, enriched	1 cup	125	2.9	0.2	2	150	0
Corn bread, from mix	2 oz.	178	3.8	0.8	133	130	Trace
Corned beef, canned	2 oz.	123	14.3	2.4	11	—	0
Corned beef hash, canned	1 cup	398	19.4	4.4	29	—	—
Crackers: graham	2 crackers 1/2" sq.	55	1.1	0.2	6	0	0
saltine	10 crackers	123	2.6	0.3	6	0	0
Cranberry juice cocktail	1 cup	164	0.3	0.8	13	Trace	40
Cream: half-and-half	1 Tbsp.	20	0.5	Trace	16	70	Trace
sour	1 Tbsp.	25	Trace	Trace	14	90	Trace
whipped topping	1 Tbsp., from can	10	Trace	Trace	3	30	0
Cucumbers, raw	1 cup, sliced	16	0.9	1.2	26	260	12
Dandelion greens, cooked	1 cup	35	2.1	1.9	147	12290	19
Dates	10 dates	219	1.8	2.4	47	40	0
Doughnut, cake, plain	1 doughnut, 2 oz.	227	2.7	0.8	23	50	Trace
Egg, raw	1 large	82	6.5	1.2	27	590	0
Eggplant, steamed	1 cup	25	1.0	0.3	6	60	1
Fish stick	1 stick, 1 oz.	50	4.7	0.1	3	0	—
Frankfurter/hot dog	2 oz.	176	7.1	1.1	4	—	—
Fruit cocktail, canned in heavy syrup	1 cup	194	1.0	1.0	23	360	5
Gelatin dessert	1 cup	142	3.6	—	—	—	—
Gingerbread	1" cube	17	0.2	0.1	5	Trace	Trace
Grapefruit, pieces	1 cup	72	0.9	0.7	28	140	67
Grapefruit juice, unsweetened	6 oz.	76	0.9	0.2	19	20	72
Grapes, Thompson seedless	1 cup	107	1.0	0.6	19	160	6
Grape juice	6 oz.	125	0.4	0.6	21	—	Trace

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Great northern beans, cooked	1 cup	210	14.0	4.9	90	0	0
Green, beans, frozen cooked	1 cup	35	2.0	1.1	61	710	11
Green beans, canned	1 cup	43	2.4	2.9	81	690	10
Green beans, fresh, cooked	1 cup	45	2.0	1.6	58	830	12
Haddock, oven fried	1 fillet, 4 oz.	182	21.6	1.3	44	—	2
Halibut, broiled with butter	1 fillet, 4.5 oz.	214	31.5	1.0	20	850	—
Ham, baked	3 oz.	318	19.6	2.6	9	0	—
Hamburger, 21% fat	4 oz.	303	20.2	3.1	11	40	—
Honey	1 Tbsp.	64	0.1	0.1	1	0	Trace
Ice cream, 10% fat	1 cup	257	6.0	0.1	194	590	1
Ice milk, 5% fat: hardened	1 cup, 8 oz.	199	6.3	0.1	204	280	1
soft-serve	1 cup, 8 oz.	266	8.4	0.2	273	370	2
Jam	1 Tbsp.	54	0.1	0.2	4	Trace	Trace
Jelly	1 Tbsp.	49	Trace	0.3	4	Trace	1
Kale, cooked	1 cup	43	5.0	1.8	206	9130	102
Kidney beans	1 cup	230	15.0	4.6	74	10	0
Kohlrabi, raw, sliced	1 cup	38	2.4	0.6	34	50	87
Lamb, broiled chop	2.5 oz. cooked weight (4 per lb.)	255	15.6	0.9	6	—	—
Lard	1 Tbsp.	117	0	0	0	0	0
Lemon, 2 1/4" diam.	1 lemon	24	1.0	0.5	23	20	46
Lentils, cooked	1 cup	231	17.9	6.6	37	15	3
Lentils, dried, cooked	1 cup	215	16.0	4.2	50	40	0
Lentils, raw	1 cup	649	53.4	17.3	99	75	12
Lettuce, raw	1 cup, chopped or shredded	7	0.5	0.3	11	180	3
Lima beans, frozen, cooked	1 cup	168	10.2	2.9	34	390	29
Liver, beef, fried	3 oz.	195	22.4	7.5	9	45390	23
Liverwurst	1 oz.	90	4.2	1.7	3	1850	—
Lunchmeat, boiled ham	1 oz.	66	5.4	0.8	3	0	—
Macaroni and cheese, canned	1 cup	228	9.4	1.0	199	260	Trace
Macaroni, enriched, cooked	1 cup	192	6.5	1.4	14	0	0
Mango, raw, flesh only	1 fruit	135	1.0	0.3	21	8060	57

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Margarine, regular	1 Tbsp.	102	0.1	0	3	470	0
Mayonnaise	1 Tbsp.	101	0.2	0.1	3	40	—
Milk: whole, 3.5%	1 cup	159	8.5	0.1	288	350	2
skim	1 cup	88	8.8	0.1	296	10	2
chocolate, from whole	1 cup	213	8.5	0.5	278	330	3
evaporated	1 cup	345	17.6	0.3	635	810	3
Molasses, medium	1 Tbsp.	46	—	1.2	58	—	—
Muffin, from mix	1 muffin (1/4 cup batter)	130	2.8	0.6	96	100	Trace
Mung beans, sprouted, cooked	1 cup	25	3.0	0.8	15	20	14
Mung beans, sprouted, raw	1 cup	30	3.0	0.9	14	20	14
Mushrooms, fresh	1 cup, slices	20	1.9	0.6	4	Trace	2
Mustard, yellow	1 Tsp.	4	0.2	0.1	4	—	—
Mustard greens, boiled	1 cup	32	3.1	2.5	193	8120	67
Noodles: cooked, egg,enriched	1 cup	200	6.6	1.4	16	110	0
chow mein	1 cup	220	5.9	—	—	—	—
Oatmeal, cooked	1 cup	133	4.8	1.4	22	0	0
Ocean perch, breaded, frozen	1 fillet, 3 oz.	281	16.6	—	—	—	—
Oil	1 Tbsp.	120	0	0	0	—	0
Okra pods, cooked	8 pods	25	2.0	0.4	54	490	14
Olives, black	10 extra large	87	0.6	0.8	50	30	—
Onions, raw	1 cup, chopped	65	2.6	0.9	46	70	17
Oranges, whole	1 fruit, 2 5/8" diam.	64	1.3	0.5	54	260	66
Orange juice	1 cup	112	1.7	0.5	27	500	124
Pancakes, enriched	1 pancake, 4" diam.	62	1.9	0.4	27	30	Trace
Parsnips, boiled	1 cup, diced	102	2.3	0.9	70	50	16
Peaches, canned in heavy syrup	1 cup, sliced	200	1.0	0.8	10	1100	8
Peanuts, roasted in shell	10 jumbo	105	4.7	0.4	13	—	0
Peanut butter	1 Tbsp.	94	4.0	0.3	9	—	0
Peaches, canned in juice	1 cup	110	2.0	0.7	15	940	9
Peaches, raw, flesh only	1 fruit	35	1.0	0.1	4	470	6
Pears, canned in heavy syrup	1 cup	194	0.5	0.5	13	10	3

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Pears, canned in juice	1 cup	125	1.0	0.7	22	10	4
Pears, raw, flesh and skin	1 fruit	100	1.0	0.4	18	30	7
Peas: canned	1 cup	164	8.7	4.2	50	1120	22
frozen, cooked	1 cup	109	8.2	3.0	30	960	21
Peppers, green, raw	1 cup, chopped	33	1.8	1.1	14	630	192
Peppers, hot chili, raw	1 pepper	20	1.0	0.5	8	4840	109
Perch, baked	3 oz.	99	21.2	0.9	87	0	0
Pickles: dill	1 pickle, 4" long	15	0.9	1.4	35	140	8
sweet	1 pickle, 3" long	51	0.2	0.4	4	30	2
relish	1 Tbsp.	21	0.1	0.1	3	—	—
Pie: apple	1/6 of 9" pie	404	3.5	0.5	13	50	2
custard	1/6 of 9" pie	331	9.3	0.9	146	350	0
lemon meringue	1/6 of 9" pie	357	5.2	0.7	20	240	4
pumpkin	1/6 of 9" pie	321	6.1	0.8	78	3750	Trace
Pineapple, juice pack	1 cup	96	0.7	0.7	30	120	17
Pineapple juice	1 cup	138	1.0	0.8	38	130	23
Pinto beans, cooked	1 cup	180	15.0	5.4	86	Trace	0
Pizza, 12" cheese	1/8 of pizza	147	5.5	0.5	86	230	4
Plums, canned in heavy syrup	1 cup	214	1.0	2.3	23	3130	5
Plums, raw	1 fruit	35	1.0	0.1	3	210	6
Popcorn, plain	1 cup	23	0.8	0.2	1	—	0
Pork chop, broiled	1 chop (3 per lb.)	305	19.3	2.7	9	0	—
Pork sausage, cooked	1 link, 1/2 oz.	46	2.2	0.3	1	—	—
Potatoes: raw	1 potato (3 per lb.)	86	2.4	0.7	8	Trace	23
french fried	10 medium strips	137	2.2	0.7	8	Trace	11
Potato chips	10 chips	114	1.1	0.4	8	Trace	3
Potato salad	1 cup	248	6.8	1.5	80	350	28
Pretzels	1 oz.	111	2.8	0.4	6	0	0
Prunes	10 prunes	260	2.1	4.0	52	1630	3
Prune juice	6 oz.	148	0.8	7.9	27	—	4
Pudding, chocolate, instant	1 cup, made from mix with whole milk	325	7.8	1.3	374	340	2
Pumpkin, canned	1 cup	85	3.0	3.4	04	54040	10
Pumpkin, cooked from raw	1 cup	50	2.0	1.4	37	2650	12
Radishes, red, raw	4 radishes	5	Trace	0.1	4	Trace	4
Raisins	1 Tbsp.	26	0.2	0.3	6	Trace	Trace

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Raspberries, raw	1 cup	70	1.5	1.1	27	160	31
Red kidney beans, canned	1 cup	230	15.0	4.6	74	10	0
Refried beans, canned	1 cup	295	18.0	5.1	141	0	17
Rhubarb, raw	1 cup, diced	20	0.7	1.0	117	120	11
Rice, white, cooked, enriched	1 cup	223	4.1	1.8	21	0	0
Rolls and buns:							
hamburger and hot dog, enriched	1 roll	119	3.3	0.8	30	Trace	Trace
hard roll, enriched	1 roll, 1 oz.	78	2.5	0.6	12	Trace	Trace
dinner roll, enriched	1 roll	75	2.1	0.5	9	Trace	Trace
Salad dressings:							
blue cheese	1 Tbsp.	76	0.7	Trace	12	30	Trace
French	1 Tbsp.	66	0.1	0.1	2	—	—
Italian	1 Tbsp.	83	Trace	Trace	2	Trace	—
thousand island	1 Tbsp.	80	0.1	0.1	2	50	Trace
Salami	1 oz.	128	6.7	1.0	4	—	—
Salmon, pink, canned	1 cup	310	45.1	1.8	431	150	—
Sardines	1 oz.	88	5.8	1.0	100	50	—
Sauerkraut, canned	1 cup	42	2.4	1.2	85	120	33
Sesame seeds, kernals, roasted	1 oz.	161	4.8	22	37	0	0
Shallots, chopped	1 Tbsp.	7	0.3	0.1	4	0	1
Sherbet, orange	1 cup	259	1.7	Trace	31	120	4
Shrimp: french fried	1 oz.	64	5.8	0.6	20	—	—
canned	1 cup	148	31.0	4.0	147	80	—
Snow peas, frozen, cooked	1 cup	84	5.6	2.8	96	266	35
Snow peas, raw	1 cup	60	4.0	3	62	210	86
Syrup, table	1 Tbsp.	59	0	0.8	9	—	0
Soft drink, cola type	12-oz. can	144	0	0	0	0	0
Soup, undiluted, canned:							
chicken noodle	10 1/2-oz. can	158	8.3	1.2	21	90	Trace
cream of mushroom	10 1/2-oz. can	331	5.7	0.9	101	180	Trace
tomato	10 1/2-oz. can	220	4.9	1.8	34	2470	31
vegetable beef	10 1/2-oz. can	198	12.8	1.8	31	6710	—
Soybean curd (tofu)	4 oz.	86	9.4	2.3	154	0	0
Soybeans, dry, cooked	1 cup	235	20.0	4.9	131	50	0
Soy milk	1 cup	29	6.6	1.4	10	77	0

	Serving Size or Weight	Food Energy (calories)	Protein (grams)	Iron (mg.)	Calcium (mg.)	Vitamin A (I.U.)	Vitamin C (mg.)
Spaghetti, cooked al dente	1 cup (enriched)	192	6.5	1.4	14	0	0
Spareribs, braised	6.3 oz. (from 1 lb.)	792	37.4	4.7	16	0	—
Spinach, frozen, leaf	10-oz. container	71	8.5	7.1	298	23000	99
Spinach, raw	1 cup	10	2.0	1.5	54	3690	15
Squash: summer, cooked	1 cup, cubed	29	1.9	0.8	53	820	21
winter, cooked	1 cup, mashed	129	3.7	1.6	57	8610	27
Strawberries, raw	1 cup, whole	55	1.0	1.5	31	90	88
Sugar, granulated	1 Tbsp.	46	0	Trace	0	0	0
Sunflower seed kernels	1 Tbsp.	50	2.1	0.6	11	4	0
Sweet potatoes, 5" long	1 potato	185	2.8	1.1	52	14260	34
Tangerine	1 large	46	0.8	0.4	40	420	31
Tofu (2½" x 2¾" x 1" piece)	1 piece	85	9.0	2.3	108	0	0
Tomatoes: raw	one 3 1/2 oz. fruit	20	1.0	0.5	12	820	21
canned	1 cup	51	2.4	1.2	14	2170	41
Tomato juice	1 cup	46	2.2	2.2	17	1940	39
Tortilla, flour	one, 1 oz.	78	2.0	0.8	0	—	—
Tuna, drained solids, in oil	1 cup	315	46.1	3.0	13	130	—
Turkey: light meat	3 oz.	150	28.0	1.0	—	—	—
dark meat	3 oz.	173	25.5	2.0	—	—	—
Turnips, boiled	1 cup, cubed	36	1.2	0.6	54	Trace	34
Turnip greens, boiled	1 cup	29	3.2	1.6	267	9140	100
Veal, braised or broiled	3 oz.	184	23.0	2.7	9	—	—
Waffles, frozen, enriched	one 1.2 oz.	86	2.4	0.6	41	40	Trace
Watermelon, diced pieces	1 cup	42	0.8	0.8	11	940	11
Wheat flakes, fortified	1 cup	106	3.1	—	12	1410	11
Wheat germ	1 Tbsp.	23	1.8	0.5	3	10	1
Yogurt: plain, whole milk	1 container/8 oz.	140	6.8	0.1	251	320	2
plain, from part skim milk	1 container/8 oz.	113	7.7	0.1	271	150	2
Yogurt, fruit flavored, lowfat	8 oz.	230	10.0	0.2	345	100	1

Mini Fast Food Composition Table

Information in this table was compiled from company product literature. Similar or additional information can be gathered from the companies' nutritional pamphlets, which may be requested at local restaurants.

	Serving size (g)	Food energy (cal)	Protein (g)	Iron	Calcium	Vitamin A	Vitamin C
				% of U.S. RDA			
Burger King							
Whopper Sandwich®	270	614	27	27	8	11	20
Whopper Sandwich® with Cheese	294	706	32	27	22	19	20
Cheeseburger	121	318	17	15	11	7	5
Cheeseburger Deluxe	151	390	18	15	11	10	9
Hamburger	108	272	15	15	4	3	5
Hamburger Deluxe	138	344	15	15	4	5	9
Bacon Double Cheeseburger	160	515	32	21	18	8	*
Bacon Double Cheeseburger Deluxe	195	592	33	21	18	12	5
Broiler Chicken Sandwich	168	379	24	13	6	7	9
Chicken Sandwich	229	685	26	19	8	3	*
Chicken Tenders™	90	236	16	4	*	*	*
Barbecue dipping sauce	28	36	0	*	*	3	4
Sweet and sour dipping sauce	28	45	0	*	*	*	*
Chef salad	273	178	17	9	16	95	25
Garden salad	223	95	6	6	15	100	58
Side salad	135	25	1	3	3	88	20
1000 island dressing	63	290	1	*	*	64	*
French dressing	64	290	0	*	*	31	*

*Provides less than 2% of the U.S. RDA of this nutrient.

	Serving size (g)	Food energy (cal)	Protein (g)	Iron	Calcium	Vitamin A	Vitamin C
				% of U.S. RDA			
Burger King – cont'd							
Reduced calorie light Italian dressing	59	170	0	*	*	*	*
French fries (medium, salted)	111	341	4	4	2	*	26
Vanilla shake	284	334	9	*	31	*	*
Chocolate shake	284	326	9	4	31	7	4
Pepsi® Cola (medium)	444	193	0	*	*	*	*
Diet Pepsi® (medium)	444	1	0	*	*	*	*
Orange juice	183	82	1	*	*	3	119
Milk (2%)	244	121	8	*	30	10	4
Milk (whole)	244	157	8	*	29	7	6
Dairy Queen/ Brazier							
Single hamburger	148	360	21	20	10	2	*
Double hamburger	210	530	36	35	10	2	*
Triple hamburger	272	710	51	50	10	4	*
Single hamburger with cheese	162	410	24	20	20	4	*
Fish fillet	177	430	20	20	15	*	*
Fish fillet with cheese	191	483	23	20	25	10	*
Chicken fillet	202	608	27	30	15	2	4
All white chicken nugget	99	276	16	6	*	*	*
BBQ nugget sauce	28	41	*	2	2	15	*
French fries	71	200	2	2	*	*	15

*Provides less than 2% of the U.S. RDA of this nutrient.

	Serving size (g)	Food energy (cal)	Protein (g)	Iron	Calcium	Vitamin A	Vitamin C
				% of U.S. RDA			
Dairy Queen/ Brazier–cont'd							
Onion rings	85	280	4	4	2	*	4
Cone, regular	142	240	6	4	15	4	*
Sundae, regular	177	310	5	6	20	4	*
Shake, regular	418	710	14	15	45	15	*
Peanut Buster® parfait	305	740	16	10	25	6	*
Mr. Misty® regular	330	250	0	*	*	*	*
Buster Bar®	149	448	10	6	10	2	*
Heath Blizzard® regular	404	800	15	15	50	6	8
Kentucky Fried Chicken							
Original Recipe Chicken:							
Wing	55	178	12.2	6.8	4.8	*	*
Side breast	90	267	18.8	6.6	6.8	*	*
Center breast	115	283	27.5	5.4	3.6	*	*
Drumstick	57	146	13.1	5.9	2.1	*	*
Thigh	104	294	17.9	7.4	6.5	*	*
Extra Tasty Crispy Chicken:							
Wing	65	254	12.4	3.5	1.8	*	*
Side breast	110	343	21.7	4.7	3.0	*	*
Center breast	135	342	33.0	4.7	3.3	*	*
Drumstick	69	204	13.6	3.9	1.3	*	*
Thigh	119	406	20.0	6.5	4.9	2.6	*
Buttermilk biscuit	65	235	4.5	9.1	9.5	*	*

*Provides less than 2% of the U.S. RDA of this nutrient.

	Serving size (g)	Food energy (cal)	Protein (g)	Iron	Calcium	Vitamin A	Vitamin C
				% of U.S. RDA			
Kentucky Fried Chicken–cont'd							
Mashed potatoes and gravy	98	71	2.4	2.3	2.2	*	*
Cole slaw	91	119	1.5	*	3.3	6.2	35.9
McDonald's							
Hamburger	120	260	12.3	15	10	4	4
Cheeseburger	116	310	15	15	20	8	4
Quarter Pounder	166	410	23.1	20	15	4	6
Quarter Pounder with cheese	194	520	28.5	20	30	15	6
Big Mac®	215	560	25.2	20	25	8	2
Filet-O-Fish®	142	440	13.8	10	15	2	*
Mc D.L.T.®	234	580	26.3	20	25	15	10
Mc Chicken®	190	490	19.2	15	15	2	4
Chicken McNuggets®	113	290	19	6	*	*	*
Chef salad	283	230	20.5	8	25	80	20
Garden salad	213	110	7.1	6	15	80	23
Side salad	115	60	3.7	4	8	45	10
Ranch dressing (¼ packet)	½ ounce	83	0.17	*	*	*	*
Red French reduced calorie dressing (¼ packet)	½ ounce	40	0.07	*	*	*	*
French fries (medium)	97	320	4.44	4	*	*	20
Vanilla yogurt cone	86	100	4	*	10	2	*
Hot fudge sundae	169	240	7.3	2	25	4	*
Apple pie	83	260	2.2	4	*	*	20

*Provides less than 2% of the U.S. RDA of this nutrient.

	Serving size (g)	Food energy (cal)	Protein (g)	Iron	Calcium	Vitamin A	Vitamin C
				% of U.S. RDA			
McDonald's–cont'd							
Coca Cola Classic®	12 fl. oz.	140	0	0	0	0	0
Coca Cola Classic®	24 fl. oz.	260	0	0	0	0	0
Coca Cola Classic®	16 fl. oz.	190	0	0	0	0	0
Orange juice	183	80	0	0	0	0	120
Milk (2% lowfat)	244	120	8.1	*	30	10	4
Pizza Hut							
(All serving sizes reflect the weight of two slices of medium size pizza **except** for Personal Pan Pizza®)							
Pan Pizza							
Cheese	205	492	30	30	63	9	12
Pepperoni	211	540	29	35	52	10	14
Supreme	255	589	32	28	50	12	16
Super Supreme	257	563	33	37	54	12	18
Thin'n Crispy ® Pizza							
Cheese	148	398	28	18	66	7	8
Pepperoni	146	413	26	18	45	7	10
Supreme	200	459	28	33	43	10	16
Super Supreme	203	463	29	27	46	10	14
Hand Tossed Pizza							
Cheese	220	518	34	30	75	10	16
Pepperoni	197	500	28	28	44	10	12
Supreme	239	540	32	45	48	11	20
Super Supreme	243	556	33	38	44	11	20

*Provides less than 2% of the U.S. RDA of this nutrient.

	Serving size (g)	Food energy (cal)	Protein (g)	Iron	Calcium	Vitamin A	Vitamin C
				% of U.S. RDA			
Pizza Hut–cont'd							
Personal Pan® Pizza (Whole Pan)							
Pepperoni	256	675	37	32	73	12	17
Supreme	264	647	33	37	52	12	18
Taco Bell *							
Nachos	106.3	346	7.49	5.19	19.13	11.28	3.13
Nachos Bell Grande®	287.2	645.8	21.64	19.33	29.69	22.75	96.38
Taco	77.96	183.3	10.26	5.96	8.41	6.54	1.91
Soft taco	92.1	228.1	11.84	12.60	11.62	4.26	2.03
Taco salad with shell & salsa	595.3	941.4	35.98	39.75	39.42	59.16	129.37
Bean burrito (red sauce)	191.4	356.7	13.11	19.29	14.75	7.06	87.62
Beef burrito (red sauce)	191.4	403.4	22.50	20.70	11.37	10.08	2.94
Burrito Supreme (red sauce)	241.0	412.7	17.98	19.99	15.31	17.52	42.69
Chicken taco	100	213	13	10	11	6	4
Steak taco	110	221	14	16	11	3	2
Pinto and cheese	127.6	190.1	8.97	7.87	15.57	8.82	86.15
Cinnamon Crisps	47.3	258.8	2.73	6.99	3.73	*	*
*Information provided by Taco Bell.							
Wendy's							
Big Classic	277	570	27	30	15	20	25
¼ lb. single burger	234	420	25	30	10	15	25
Chicken club sandwich	231	500	30	80	10	10	20

*Provides less than 2% of the U.S. RDA of this nutrient.

	Serving size (g)	Food energy (cal)	Protein (g)	Iron	Calcium	Vitamin A	Vitamin C
				% of U.S. RDA			
Wendy's–cont'd							
Bacon and cheese potato	347	450	15	20	10	15	15
Chili and cheese potato	419	530	21	30	30	25	15
Broccoli and cheese potato	377	400	9	20	15	50	110
cole slaw (¼ cup)	57	90	<1	0	2	15	25
Three bean salad (¼ cup)	57	60	1	2	2*	4	*
Garlic toast (¼ Kaiser roll)	18.3	70	2	2	2	4	*
Taco salad	291	660	40	35	80	80	80
Potato salad (¼ cup)	57	110	<1	2	*	*	10
Pasta salad (¼ cup)	57	35	2	2	*	*	*
Chocolate pudding (¼ cup)	57	90	<1	2	15	*	*

*Provides less than 2% of the U.S. RDA of this nutrient.

Answers to the Survey and Puzzles

Answer Key to the Starter Survey

Numbers in parentheses indicate the lesson that includes each item's information.

1. 300 (1)
2. 25-35 (1)
3. both the mother and the baby (1)
4. cannot (1)
5. Rice and beans (2)
6. 4 (3)
7. collards and fish with edible bones (3)
8. should not (4)
9. Iron (4)
10. zinc (4)
11. Seafoods (4)
12. vitamin A (5)
13. Carrots and dark yellow squash (5)
14. Broccoli and leafy green vegetables (5)
15. green peppers and oranges (5)
16. fortified milk (5)
17. are (6)
18. mentally retarded, unusual facial features (6)
19. sometimes useful (6)
20. is dangerous (6)
21. avoiding greasy or fried foods (7)
22. drinking more water (7)
23. is dangerous (7)
24. can be eaten occasionally (8)
25. low-fat milk (8)
26. make and use a grocery list (9)
27. help in choosing the most nutritious food for the money (9)
28. milk (11)
29. can (11)
30. both mother's feelings and infant's needs (12)
31. sometimes necessary (12)
32. 4-5 (13)
33. salt (13)

Preliminary Lesson: General Nutrition Concepts

1. nutrient
2. water
3. carbohydrate
4. energy
5. protein
6. vitamins/minerals
7. food group
8. fat
9. calorie

These are only a few of the possibilities. Refer to *Diet for a Small Planet* or *Recipes for a Small Planet* for many more.

Grains and Legumes

Breakfast:	whole wheat toast with peanut butter
	toast made with corn/soy or wheat/soy flours (this may be unfamiliar to most students)
Lunch or Dinner:	corn tortilla and beans
	baked beans and corn bread
	whole wheat muffins and lentil or split pea soup
Snack:	corn nuts and peanuts

Seeds and Legumes

Lunch or Dinner:	peanut butter on sunflower seed bread
	pumpkin seeds sprinkled on navy bean soup
	fresh fruit salad sprinkled with chopped peanuts and sesame seeds
Snack:	roasted soy bean "nuts" and sunflower seed

Animal Protein and Grains

Breakfast:	milk and breakfast cereal
	flavored yogurt and whole grain muffin or toast
	scrambled eggs and whole wheat toast
	cheese pizza (yes, for breakfast!)
Lunch or Dinner:	cheese and whole wheat crackers
	hamburger or cheeseburger
	beef or cheese taco
	spaghetti with meat sauce and cheese
	beef or cheese enchiladas
	Chinese meat dish with rice
	cheese omelet
Snack:	cheese and crackers
	hot dog and bun

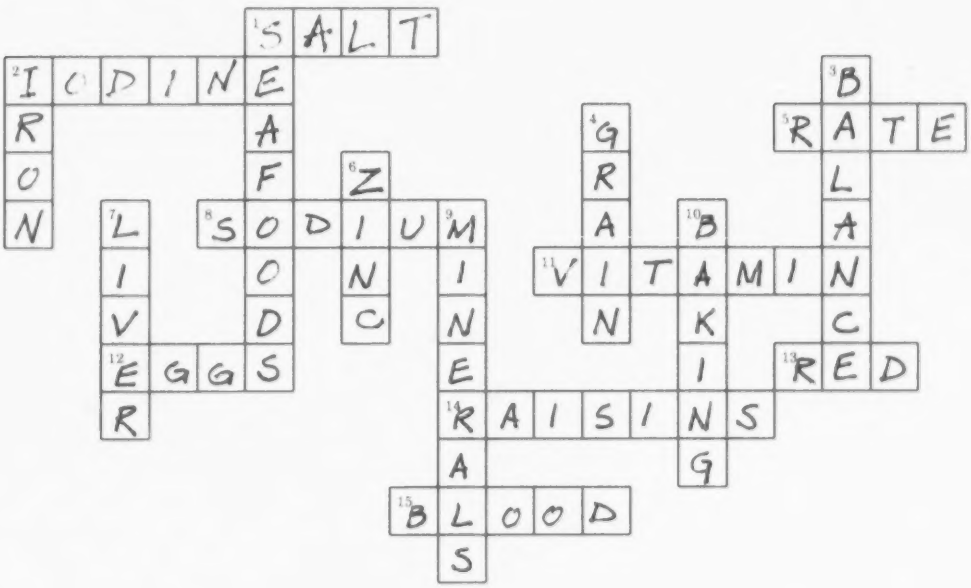
Animal Protein and Legumes

Breakfast:	split pea soup made with milk
	peanut butter milkshake
Lunch or Dinner:	ham and split pea soup
	chili with meat and beans
	peanut butter sandwich with glass of milk
	kidney bean and tuna salad
	baked beans with ham or pork
	bean soup with meat
	taco and refried beans
Snack:	bean and cheese dip with crackers

Lesson 3: Calcium Needs During Pregnancy

1. cheese
2. kale
3. ice milk
4. dandelion greens
5. milk
6. collards
7. yogurt
8. mustard greens
9. ice cream
10. salmon with bones
11. cottage cheese
12. turnip greens
13. buttermilk
14. sardines
15. chocolate milk

Lesson 4: Minerals—ZIIS for Zest and Zip



Iron, zinc, iodine, and sodium are very important minerals in pregnancy. Iron is needed to produce red blood cells. Good food sources are red meat, organ meats such as liver, dried beans and peas, and fruits like raisins and prunes. Your body can absorb iron from your diet better if vitamin C-rich foods are eaten with the iron-rich foods.

Sodium is needed to maintain water balance in the extra fluids normally gained in pregnancy. The most common source of sodium in the U. S. diet is table salt. Baking powder also contains sodium.

Zinc is important for your baby's bones and muscles and can be found in eggs and whole grain foods. Iodine can be found in iodized salt and in seafoods. You and your baby need small amounts of iodine to regulate your rate of growth.

1. Eggs and butter are animal products that are good sources of vitamin A.
2. Vitamin A and vitamin D help your developing baby to grow strong teeth and bones.
3. Broccoli and green peppers are both excellent sources of vitamin C.
4. Oranges contain vitamin C and folacin.
5. Folacin helps your body produce red blood cells and also prevents anemia.
6. Calcium needs vitamin D to be absorbed properly.
7. You can get vitamin D from fortified milk or fish liver oils, but sunlight on the skin causes the body to produce vitamin D, too.
8. If you drink a glass of orange juice with whole wheat toast, the vitamin C in the orange juice helps your body absorb the iron in the whole wheat.
9. Vitamin A helps your baby's body cells grow properly.
10. Tomatoes and potatoes are good sources of vitamin C.

Lesson 12: Nutrition During Nursing

These are only suggestions for menu additions and substitutions; a variety of others are possible. Use the information handout as a guide.

Menu I: Add a glass of milk, juice, or extra water.

Menu II: Substitute a glass of whole milk for skim milk; chocolate milk for skim milk; or cheeseburger for hamburger.

Menu III: Substitute a peanut butter sandwich for bread and butter sandwich; glass of milk for soda; ice cream sandwich for two candy bars; dry roasted peanuts for potato chips; or meat or cheese sandwich for bread and butter sandwich.

Menu IV: Add an orange, glass of orange juice, fresh tomato, green salad, or cole slaw.

Menu V: Substitute whole wheat bread for white bread or egg salad sandwich for peanut butter and jelly.

Menu VI: Substitute liver and onions for ham steak; broccoli, spinach, or collards for carrots; whole grain roll for white roll; whole milk for skim milk; brown rice for scalloped potatoes.

Menu VII: Add more cheese to the taco; refried beans or a burrito; cheese to the salad; glass of milk; or another taco.

Menu VIII: Add extra pizza, glass of milk, salad, piece of fruit, dried fruit, or peanuts.

Menu IX: Add an egg and change black coffee to milk, or add milk to coffee, or have coffee and a glass of milk; substitute peanut butter for butter; substitute cheese spread for butter.

Lesson 13: Introducing Solid Foods to the Baby's Diet

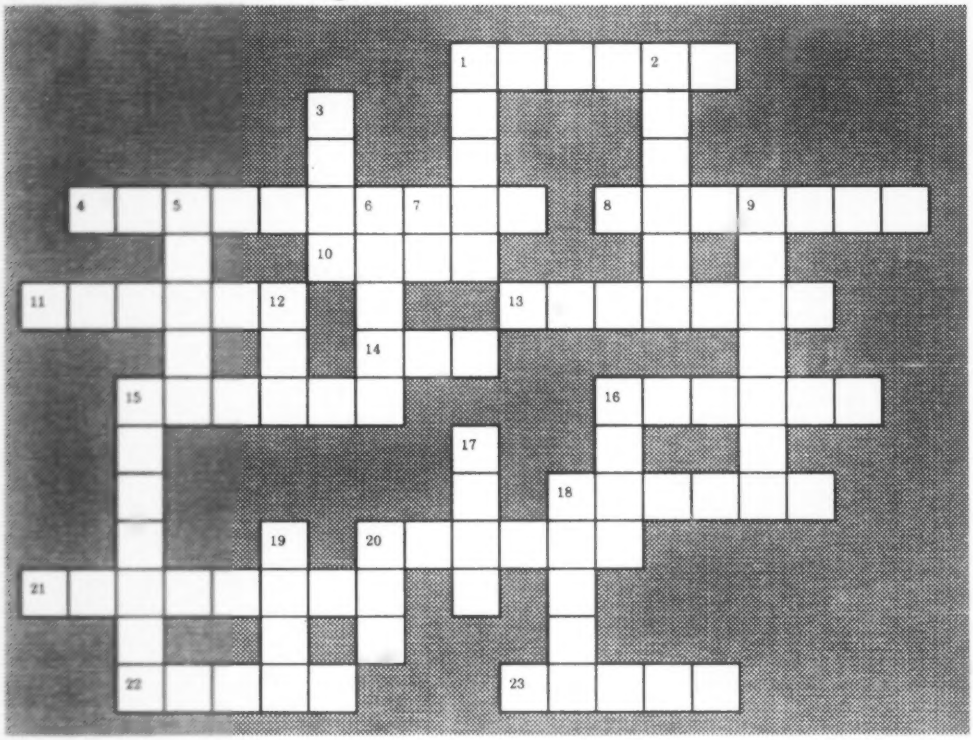
Top

A. four fruits
B. white iron
C. cheaper salt
D. wheat bottle
E. sugar solids
F. egg doctor
G. honey baby

Bottom

1. A. four
2. B. Iron
3. D. Wheat F. egg white
4. C. cheaper
5. G. Honey
6. C. salt E. sugar
7. A. Fruits
8. E. Solids D. bottle
9. F. doctor
10. G. baby

Lesson 14: Fruits and Vegetables



ACROSS

1. fruits
4. vegetables
8. calcium
10. pear
11. potato
13. absorbs
14. raw
15. celery
16. banana
18. frozen
20. prunes
21. broccoli
22. skins
23. green

DOWN

1. fiber
2. tomato
3. trap
5. grape
6. berry
7. la
9. cabbage
12. one
15. carrots
16. bars
17. four
18. fewer
19. corn
20. pie

Lesson 15: Grain Foods

1. white bread
2. some brands of pretzels
3. spaghetti, vermicelli
4. waffles, pancakes, french toast, english muffins, bagels, bread dough, garlic bread
5. Savory Classics, Rice Pilaf, Rice-A-Roni, Uncle Ben's Country Inn, Kraft Rice & Cheese, Minute Rice Minute Microwave Dishes, Suzi Wan Chicken Flavor Rice Dishes
6. Noodle Roni, Macaroni & Cheese, Suddenly Salad, Hamburger and Tuna Helper, Noodles and Sauce, Pasta and Sauce, Pasta and Cheese
7. oatmeal, farina, Malt-O-Meal
8. Puffed Wheat, Puffed Rice, NutriGrain, Shredded Wheat, Shredded Wheat'n Bran
9. Cap'n Crunch Crunch Berries, Super Golden Crisp
10. Oatmeal Swirlers, Instant Oatmeal, CocoWheats, Quick Malt-O-Meal, Instant Oat Bran, Ralston High Fiber Hot Cereal
11. hominy (a corn product)
12. varies
13. varies
14. chicken noodle soup, any Chef Boyardee or Franco American Product
15. macaroni and cheese, frozen entrees such as Weight Watchers or Le Menu lasagna
16. Melba Toasts, Wheat Thins, Ritz, Wheatsworth, Vegetable Thins
17. Cheerios

1. beans
2. meat
3. veal
4. poultry
5. pork
6. soy
7. dry
8. oysters
9. phosphorus
10. iron
11. cholesterol
12. sesame
13. sunflower
14. yolk
15. liver
16. egg
17. crab
18. calorie
19. peanuts